# DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 2004

**WEDNESDAY, MARCH 26, 2003**

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
*Washington, DC.*

The subcommittee met at 10 a.m., in room SD–192, Dirksen Senate Office Building, Hon. Ted Stevens (chairman) presiding.

Present: Senators Stevens, Cochran, Domenici, Shelby, Burns, Inouye, Dorgan, and Durbin.

## DEPARTMENT OF DEFENSE

### DEPARTMENT OF THE AIR FORCE

**STATEMENT OF HON. JAMES G. ROCHE, SECRETARY OF THE AIR FORCE**

**ACCOMPANIED BY GENERAL JOHN P. JUMPER, AIR FORCE, CHIEF OF STAFF**

OPENING STATEMENT OF SENATOR TED STEVENS

Senator STEVENS. Secretary Roche, General Jumper, truly the eyes of the world are upon you, and we have witnessed with awe the professionalism of the Air Force and the planning that you have done. All Americans I think are very proud of you; some may disagree with the decision to go there, but I don't think there is anyone that is not proud of our men and women in uniform and those working with them in civilian life in the Department of Defense.

These combat missions in Iraq are really telling an amazing story of the times that you and your predecessors have been before this committee asking for taxpayers' money to make certain that you had the type of equipment that you could use if and when the Commander in Chief asked you to perform the duties that you are now performing.

I think the whole country is proud of you as I've said, but I think we are very proud that you are where you are now, because we know you all and we've worked with you and we know that you really have in mind the safety of those men and women that are under your command.

We now begin the review of the fiscal year 2004 budget, that's what we're talking about today. There is now pending before us a supplemental request for fiscal year 2003 for the operations in Iraq and the war on terrorism. That will not be the subject of the dis-

cussion here today. We do believe that the missions that you are performing today might change this budget as we go down the line, as far as what's needed in fiscal year 2004, and we will listen respectfully to any changes that you might wish to make now or later in your fiscal year 2004 request.

We personally look forward, I do, to hearing your statements today and knowing the priorities in the budget request for fiscal year 2004. I do expect and hope we will hear your urgent plea for action on the supplemental, which I hope to get passed before we leave on the Easter recess. And as you may know, I have made the statement to our Commander in Chief that if we don't finish by the time for our recess, I don't think we should leave Washington until we do finish the supplemental. It's that important, I believe, to the men and women wearing our uniform around the world.

We will make your statements part of the record in full, I look forward to your statements today, and before you proceed, let me call on my good friend from Hawaii, my co-chairman.

Senator INOUYE. I want to thank you very much, Mr. Chairman. Mr. Secretary, General Jumper, I join my chairman in welcoming you once again to testify before this committee.

Let me join my chairman in saying how proud and supportive we are of the work done by the men and women of the Air Force in support of the global war on terrorism and the current mission in Iraq. I can join my chairman in assuring you that this committee will do all it can to support the Department's effort.

Senator STEVENS. Senator Burns, do you have a statement?

STATEMENT OF SENATOR CONRAD BURNS

Senator BURNS. Mr. Chairman, I just want to echo our feelings, I think I, along with the rest of my colleagues and you, try to offer our men and women who are wearing the uniform right now, especially the Air Force, not only have the training and the equipment to complete the mission that we have, and also get them home safely. We are very supportive of your organization, your leadership, and of course the role that all people are playing right now who wear the uniform of this country and believe in the same precepts that we do.

Mr. Chairman, thank you very much.

Senator STEVENS. Senator Dorgan.

STATEMENT OF SENATOR BYRON L. DORGAN

Senator DORGAN. Mr. Chairman, let me echo the comments you have made and my other two colleagues, Mr. Secretary, and especially to the men and women who serve under you for your service to our country. I'm going to have to go to the floor of the Senate for about 15 to 20 minutes at 10:30, but I want to come back. I do have a series of questions I want to ask. And again, it's always a great opportunity to hear from General Jumper, and thank you for your service.

Senator STEVENS. Let me remind the committee that we have these high tech microphones now, and you have to push the button, but the light shows underneath it rather than on top. Be sure you turn it on when you're going to speak.

Secretary Roche, we should all have a moment of silent prayer for the souls of those who have already lost their lives in this endeavor, and I do hope you will agree that we should just stand here in a moment of silence before we begin this testimony.

Secretary ROCHE. I would be honored, Mr. Chairman.

[A moment of silence was observed.]

Senator STEVENS. Thank you very much.

Those visions on the television bring back memories to Senator Inouye and myself, and I think others on this committee, so we do welcome you today and look forward to your testimony.

Secretary ROCHE. Thank you very much, Mr. Chairman. I think I've got the button pushed correctly and it's working.

Thank you, sir, and thank you, Senator Inouye and members of the committee for this opportunity. It is my great honor to join my colleague General John Jumper today, to represent the 700,000 active, guard, reserve and civilian airmen who are engaged in defending our nation and serving our interests around the globe. We are very proud of their honorable service and unshakable dedication, from combat operations and homeland defense to the daily efforts that guarantee the readiness, health, security and morale of our force.

In our travels around the Air Force, as you have traveled around to many of our bases, we have been impressed and humbled by the creativity of our airmen, their commitment and their professionalism.

As we appear before you today, we have close to 50,000 airmen serving at some 50 expeditionary bases in more than 35 countries, plus another 60,000 airmen currently assigned overseas. We have over 43,000 airmen in the area of operations as of today. They are fighting the war on terrorism and defending our Nation's interests even as we speak.

## OPERATION IRAQI FREEDOM

In Operation Iraqi Freedom, the Air Force has fully integrated into a joint and coalition force conducting combat operations in support of our strategic and campaign objectives. The combined forces' air component commander, Air Force Lieutenant General Buzz Moseley, who many of you in the Senate know, commands almost 2,000 Air Force, Navy, Marine Corps and coalition aircraft in a single combined air operation center in Southwest Asia.

## AIR POWER

The air picture in this operation center shows the dense presence of air power over the entire country of Iraq. If we could have a camera looking down from far far overhead, with a blue dot for every American airplane over Iraq, I think you would be pleased to see the incredible coverage of air power over that country supporting the forces on the ground and supporting key objectives. We are targeting the Iraqi regime, Saddam's command and control systems, weapons of mass destruction, security apparatus in the regular forces, who have often used brutal oppression and treachery to sustain the regime, and the Iraqi military forces engaged against our marines, soldiers and airmen on the ground.

Our first and parallel campaign, to support the suppression of enemy air defenses, Scud hunting, and information operations have and will continue to enable the maneuver of maritime and special operations forces to operate under the umbrella of air dominance throughout the theater.

Our extended preparation of battle space since last summer, consisting of nearly 4,000 combat sorties and year of planning has resulted in unprecedented flexibility in achieving decisive effects. The 10 years that we've been in Operation Northern Watch and Operation Southern Watch have provided us with crews, about 70 to 75 percent of whom are combat experienced as they enter into this conflict.

Mr. Chairman, I would like to note that to date, the Iraqi Air Force has not flown a single sortie against coalition forces or the Iraqi people. This is airspace dominance. This is what General Jumper has been working on for his whole life, this is what he promised, and we are delivering. This is what we pledged to deliver to our combatant commanders and to our Nation, should the President call upon us to do so. Mr. Chairman, you are quite right, they have performed superbly, along with their colleagues on the ground and at sea.

## TRANSFORMATION

As we prepare for future uncertainty, we fully support the Department's continuing efforts to balance near-term readiness and operational requirements with long-term transformation of our Armed Forces. Our challenge is to fight the global war on terrorism while simultaneously transforming, and we must do both.

Now while we face near-term budget pressures, we nevertheless must invest for the future. Otherwise, we may be forced to pay more later in dollars and perhaps even in lives. Of utmost importance to us is our continued focus on warfighting and delivering a full spectrum of air and space capabilities to combatant commanders. Through the efforts of this committee, your colleagues in the Congress, and Secretary Rumsfeld, I am proud to report that we are currently meeting these objectives.

## HOMELAND DEFENSE

We have some good news to report on calendar year 2002, Mr. Chairman. It was a year of challenging operations. In calendar year 2002 we continued our expanded homeland defense mission, providing 25,000 fighter, tanker and airborne warning sorties. This was made possible only through the mobilization of over 30,000 airmen in the Air Force Reserve and Air National Guard. They have conducted over 75 percent of all the Noble Eagle missions and they have done it superbly.

Today we continue this effort, in fact it's a heightened effort, with more than 200 military aircraft dedicated to providing combat air patrols, for on-call support to high risk areas, cities and key facilities in the United States. In Operation Enduring Freedom, we made joint operations on a landlocked nation possible. We flew more than 40,000 sorties, over 70 percent of the coalition air operations, in 2002 alone, and of our 8,000 refueling missions we are

proud to point out that 55 percent were to Navy and Marine Corps, and coalition aircraft.

AFGHANISTAN

In Afghanistan, our special operations teams developed new ways to bring air and space power to bear in a variety of engagements. Our combat controllers integrated new technologies and precision weapons to do close air support from 39,000 feet, using B–1 and B–52 bombers, and at lower altitudes for our Air Force, Navy and Marine Corps fighter bombers. And we're now developing better processes to target and engage time-critical moving targets.

IRAQ

Yesterday, Mr. Chairman, we flew 648 Air Force missions in Iraq, over Iraq. Our colleagues in the Navy and Marine Corps also flew many hundred missions. To date, in the last 5 days of this conflict, sir, we have flown over 4,800 sorties over Iraq. That includes bombers, fighters, our Combat Search and Rescue (CSAR) and special operators, and our Command, Control, Intelligence Surveillance and Reconnaissance ($C^2ISR$), as well as tankers and cargo aircraft. So we have been working quite hard.

B–1

Continuous improvements in readiness and technology made these successes possible. With your support we successfully consolidated our B–1 bomber fleet and improved overall readiness. Its mission-capable rate was up 10 percent last year and is now over 71 percent, the highest in history, and we are proud to point out, Mr. Chairman, that the B–1 has flown over Baghdad with 24 weapons on each sortie, 24 highly precise weapons on each sortie.

C–5

The increases funded by this committee and the Congress that you have supported is paying off well. Sixteen of 20 weapons systems improved mission-capable rates last year. The C–5B achieved its highest mission-capable rate since 1994, it's now at 73 percent. The B–2 improved over 50 percent.

A–10 AND F–15 AIRCRAFT

The A–10, a workhorse working with our Army ground forces right now, is up 8 percent, and our F–15s are up over 5 percent. These are the best mission-capable rates we have experienced in 5 years and the best annual increases we've achieved since the mid-1980s.

Mr. Chairman, while we are making great progress in adapting the Air Force, we face many challenges to our continued superiority as you are well aware. The increasing proliferation of advanced surface-to-air missile systems threatens our ability to gain and maintain air superiority in potential conflicts. Manned portable surface-to-air missiles have proliferated extensively, and in fact new ballistic missile and cruise missile technologies are spreading.

RUSSIAN SU–37

An advanced fighter has already been produced, specifically the Russian SU–37, that is superior to our best fighter, a prototype that has not yet been explored.

We are also now facing the undeniable reality that other nations are investing in American military technologies and fielding the best our aerospace industry has to offer in their air forces. While the investment of our good friends and allies is a great value to our alliances and industrial base, superior capabilities are now or shortly will be present in American-produced airplanes that don't fly the American flag. And I remind you, sir, that in the late 1930s, the aerospace industry of America, 38 percent of its sales were overseas sales, because they did not have enough of a market here in the United States, and some of the best technology was in fact being exported to other countries in the late 1930s, and some of that technology, regrettably, we had to face in combat.

AGING AIRCRAFT

Now while other nations are modernizing, we continue to employ aging systems that are becoming more difficult to operate and more expensive to maintain. The average age of the operational Air Force fleet is over 22 years per aircraft. Even with planned aircraft procurements, the total fleet average age is expected to increase to 27 years by the year 2020.

We benchmark this by noting how many of existing aircraft that are flying, Mr. Chairman, were flying prior to my being commissioned as an Ensign in the United States Navy, or prior to General Jumper being commissioned a Second Lieutenant in the United States Air Force. And you should know, all of our tanker aircraft that are flying today were flying before General Jumper was commissioned a Second Lieutenant, and a goodly number of the E models were flying when I was commissioned an Ensign. I'm old, but these planes are older.

In the way ahead, our proposed fiscal year 2004 budget addresses a number of our challenges and supports the Department's priorities. It accelerates our modernization and joint capabilities and maintains the gains in readiness and people programs that we achieved last year. Most importantly, it gets money into our procurement programs and funds essential capabilities our warfighters need.

I strongly request that you support these major programs so that we can get our costs out and we can get reliability up.

MANPOWER

Our number one investment priority remains our people. The budget fully supports our authorized total force end strength, funds our education and force development initiatives, puts us on track to eliminate inadequate housing, and reduces out-of-pocket housing expenses on schedule with Secretary Rumsfeld's objectives.

We appreciate your continued support of pay raises for our uniformed and civilian airmen, and they truly, truly appreciate the way this has been done, with the disproportionate amounts going to our most senior enlisted.

READINESS

Our readiness budget increases by 6 percent. It funds an expanded $6 billion flying hours program, and sustains the positive trends we've achieved in our readiness rates.

Our proposal increases our infrastructure investment compared to the fiscal year 2003 requested level and keeps us on track to meet the Department's goal of a 67 year recapitalization rate by fiscal year 2008.

F/A–22

Finally, I'm proud to report our proposed budget increases investment in new technologies by 5 percent over last year. Next year we will fund 20 F/A–22s with new crew, continuing our move to sustained production rate. The program is improving and the Raptor is currently meeting or exceeding all key performance related requirements. We have a structure to do upgrade spirals to focus on developing systems with inherent air-to-ground capabilities, and have recently delivered our initial production aircraft to Nellis Air Force Base.

Now we are experiencing some difficulties with the new program, and this is one that is dramatically dependent on software, one of the greatest advances in aviation in our history. The software integration and test is an issue that we are battling through. Mr. Chairman, General Jumper and I personally got involved in this program in July of last year, and in the course of those 8 months we have airplanes now either being delivered on time or early. We have taken care of all foreign object damage production techniques that were happening with the contractor, we have fixed the problem of fin buffet, we are making test forms across the board, both in terms of flying test points, logistic test points.

We have basically narrowed down what needs to be done to push this aircraft through to completion, and the software stability is something we're working on very, very hard. It represents the classic challenge of transitioning from development to production, and when something is this software-dependent, it is very difficult to bring everything together, and then when we bring it together, we try and make it work.

What is different about the program, Mr. Chairman, is we now have a more realistic cost-estimating regime and a far better management team in place to anticipate the likely challenges we will face.

We remain committed to our F/A–22 buy-to-budget strategy, and will maximize the number of aircraft we procure within the pre-established budget caps. This serves as an insurance policy for the taxpayer and an incentive for the Air Force and our industry suppliers to get it done right. With your support, we will continue to deliver the only operational system we will field this decade that puts iron on the enemy.

And if I may add, Mr. Chairman, we are dedicated to bringing the system on line because it will alter how we fight. If we can't, John Jumper and I will be the first to recommend to Secretary Rumsfeld that this program be terminated. We ask you to give us a chance to deliver the system, a system about which you would

be very proud, a system that will parallel the C–17, a program that almost died, almost died, and almost died, and is now being the absolute workhorse of this battle.

More cuts and restrictions at this juncture will only increase inefficiencies and costs. We need a blessed year or two of stability to be able to bring this home.

Mr. Chairman, we are also working with Secretary Rumsfeld and our colleagues to implement a range of sensible management practices that we believe will help minimize obstacles to a path of effective future administration of the Department. In particular, we are looking at measures to transform our personnel, acquisition, administrative and range management practices.

SUPPLEMENTAL APPROPRIATIONS

And yes, Mr. Chairman, we absolutely support your point on the supplemental. Sixty two point some billion dollars is something that we can't take out of hide, clearly. We see ourselves going broke sometime in the early summer. We believe that this is a reasonable estimate of what we need to go forward, and we certainly agree with you that having the supplemental dealt with by Easter would be a dramatic boon to our forces because we would be able to deal with the problem that we have been cash flowing expenditures because of the war, leaving us with a number of gaps, and adjusting those gaps with a supplemental would be a major issue.

We thank you for the investments you've made in our future, for the trust that you have placed in our concerted effort to provide America with aerospace dominance.

Mr. Chairman, if I may, it is my distinct pleasure to come to work every day and work with the finest colleague I have ever worked with, John Jumper. Thank you.

Senator STEVENS. General Jumper.

General JUMPER. Thank you, Mr. Chairman, Senator Inouye, it is a pleasure to be before this distinguished committee again this year and to be able to talk about our great United States Air Force. And your airmen, Mr. Chairman, are proud to stand beside the soldiers, sailors and marines engaged in the conflict that commands all of our attention today.

Let me add also what a pleasure it is for our United States Air Force to have this veteran sailor who sits beside me here today, a graduate of the United States Navy after 23 years and a commander of a ship, it's a pleasure to have someone who brings command responsibility and the understanding of command and warfare to our United States Air Force. He has graduated from an ancient mariner to an elder airman, and he has made that transition very well, sir, and I am very proud to serve with him.

MISSION CAPABLE RATES

Sir, I would say in the present operations, we are seeing mission-capable rates on our platforms over there between 80 and 90 percent. This has been enabled by the attention this committee has paid over the last few years to get the parts and the assets to the people out there who fix these airplanes.

C–17

The secondary effect is the effect it has on retention and recruiting. When you get the part to the airman on the flight line to fix the airplane, you have just given that airman our vote that we care about what he does, and that translates directly into retention rates and we are enjoying some of the highest retention rates in the Air Force that we've seen for a very long time for our experienced airmen. So, I thank you for all the attention over the years you have paid to that and as the Secretary pointed out, the C–17 example, we have seen that great program mature into an aircraft that we just could not do without in this current conflict.

We have also seen support from this committee on a new series of weapons like the Joint Direct Attack Munitions (JDAM), and I'm happy to report that having found the Global Positioning System (GPS) jammers in and around Baghdad, we were able to take those jammers out with GPS-aided bombs, the JDAM, the very bomb the jammer was designed to defeat, because it was such a great weapon.

OPERATION NOBLE EAGLE

As the Secretary pointed out, we don't do this alone. In Operation Noble Eagle, over 80 percent of the effort that goes in to patrolling the skies over America is done by our National Guard and Reserve. Although today we have the 388th Fighter Wing from Hill Air Force Base flying Combat Air Patrols (CAPs) as we speak over Washington D.C., over 80 percent of those on a day-to-day basis are performed by the Guard and Reserve, and most of those over the United States today are in fact done by the Guard and Reserve.

KC–135

As my boss pointed out, we're also dealing with the effects of an aging force and all you have to do is go out to Tinker Air Force Base and see the corrosion that is eating away at our KC–135 fleet to be convinced that you cannot fly airplanes forever. And we will continue to try to do our best to replace the worst of those airplanes as soon as we can.

F/A–22

I would also add, sir, to my boss's description of the F/A–22, in addition to the data he has provided, we also have talked to the pilots on a day-to-day basis, and the pilots who are out flying the airplane come back with stories of the most magnificent increase in combat capability that they have imagined. The airplane is performing superbly all of the things that we need the most, the super cruise, the stealth qualities, and as the boss pointed out, we still have to work on the software integration problem, but we have devoted our full attention to this, the Secretary and I, and we see a way through this. And again, I add my plea for program stability as we go into the future.

There are many other things that are transformational that are ongoing with regard to space and other weapons developments that we're excited about, but the thing that we're most excited about is our people. And you all get to travel around, you get to see our peo-

ple in action out there on the flight lines and in operation, and I think we can all be very proud of the young Americans we're putting out there.

LACKLAND AIR FORCE BASE

One of the things I like to do is go to Lackland Air Force Base on Fridays. Every Friday we bring in a thousand new airmen into our Air Force, and they parade by and it's a wonderful ceremony. But a fun thing to do is to go sit in a dark corner somewhere and watch the youngsters get back with their parents after their parents haven't seen them for several weeks. And if you look hard enough, after every ceremony, you will see some young airman standing in front of his or her mother or father saying yes, mom, it is me, because the parents don't even recognize the kid they dropped off just a few short weeks ago. And the dad's standing back saying this ain't my kid, this kid is standing up straight, saying ma'am and sir, but it is.

SOUTHWEST ASIA

And you go out there and you see them in action. I was recently at a base in Southwest Asia and I was approached by a young captain combat engineer with his chief master sergeant, who came up and saluted, and said, sir, I'm building this runway. And he's over there building a runway, not a minor project by any standard. And he says, sir, I started this runway a while ago, they're trying to send me home in a couple of weeks because I'm due to rotate. I'm here to tell you, the chief and I are here to tell you that we're not leaving until this runway is done, this is my runway. And that's the way they feel and operate, and we see it out there all the time. It is something for us all to be proud of.

I love to talk to World War II veterans, you all know this, but some of them don't know that this generation when properly motivated are every bit as dedicated and patriotic as any generation that ever served, and I'm proud to be a part of that.

AIR FORCE ACADEMY

Finally, Mr. Chairman, let me just make one note about the United States (U.S.) Air Force Academy. The Secretary and I have devoted personal attention—you notice that there have been no spokesmen on this issue. This is an issue we're taking on personally. Your constituents out there who come to you and ask for nominations to the United States Air Force Academy need to know that it's a safe place to go, that it's a place where we devote our full energy to developing officers of high character and high moral standards.

PREPARED STATEMENT

We will implement a set of corrections at the Air Force Academy that will return us to those high standards, and again, the Secretary and I will personally oversee their implementation and returning the United States Air Force Academy to the superb institution that it really is.

Thank you, Mr. Chairman, I look forward to your questions.

[The statement follows:]

PREPARED STATEMENT OF JAMES G. ROCHE AND GENERAL JOHN P. JUMPER

Mr. Chairman and members of the committee, the Air Force has an unlimited horizon for air and space capabilities. Our Service was borne of innovation, and we remain focused on identifying and developing the concepts of operations, advanced technologies, and integrated operations required to provide the joint force with unprecedented capabilities and to remain the world's dominant air and space force.

The Wright brothers' historic flight in 1903 ushered in the dawn of a dramatic era of scientific, cultural, and technological advances. As the Air Force celebrates this centennial of powered flight, we do so with the recognition that, despite the daunting challenges of a more dynamic security environment, the next hundred years will witness equally fantastic achievements. The 2003 Air Force Posture Statement reflects this optimism. In this report, we relate some of our accomplishments of 2002 as well as our vision of an innovative and adaptive force capable of guaranteeing American air and space dominance for the decades to come. Our successes are America's successes; they are the direct result of the selfless and unconditional service by men and women of the Total Air Force and their families.

During the past year, and in the midst of combat and a variety of contingency operations, we evaluated, implemented, and validated a host of technological advances, organizational changes, and concepts of operations. These enabled us to deliver desired effects faster and with greater precision than at any time in the history of warfare. Such adaptation is characteristic of our Service, as airmen continually strive to push innovation ever forward en route to unprecedented air and space capabilities for combatant commanders, the joint force, and our Nation. In the year ahead, we will move our expeditionary Air Force closer to realizing the transformational imperatives of this new era, machine-to-machine digital integration of manned, unmanned and space assets, and joint command and control. Our concepts of operations leverage this integration, and expand our asymmetric advantages in air and space—advantages that are fundamental to defending America's interests, assuring our allies and coalition partners, and winning the Nation's wars.

We recognize the responsibility for America's security is not one we shoulder alone. We work tirelessly toward developing and training professional airmen, transitioning new technologies into warfighting, and integrating the capabilities of our sister services, other government agencies, and those of our friends abroad to act in the most efficient and effective manner across all operations—from humanitarian to combat missions. At the same time, we pay special attention to the consolidating aerospace industry, our acquisition processes, and our critical modernization challenges, to ensure we will be able to draw upon our core competencies for decades to come.

Blessed with full endorsement from the American people, the Congress, and the President, we will remain the world's dominant Air Force. We are honored to serve with America's airmen, and we sincerely appreciate the confidence in our commitment and capability to provide our great nation with superiority in air and space.

INTRODUCTION

As America approaches the 100th anniversary of powered flight, the Air Force realizes that the nation is only in the adolescence of air and space capabilities. Yet we envision a future that will manifest dramatic advances in propulsion, operational employment, weapons systems, information technology, education, and training for our air and space forces. It is a future of unprecedented, seamless integration of air and space capabilities with joint command and control at the operational level of war, and machine-to-machine integration at the tactical level. We are pursuing these changes—some elementary, others revolutionary—which will dramatically escalate the capabilities available to the joint forces of the United States, perpetuate American air and space dominance, and redefine the nature of warfare.

If there was any ambiguity about the nature of the security environment in this new century, the attacks of September 11, 2001 crystallized the setting. Just as the turmoil of the previous decade eluded prediction, the dynamic setting of the decades ahead poses even greater predictive challenges as centers of power and sources of conflict migrate from traditional origins. No longer will it suffice to prepare for real and perceived threats from nation-states. Instead, America must apply the sum of our operational experiences and experimentation to develop dynamic, flexible, and adaptable forces, capable of dissuading, deterring, and defeating a much wider range of potential adversaries, while still assuring our friends and allies.

This fluid setting underscores the need for doctrinal agility, and expeditious and responsive acquisition, planning, and execution across the spectrum of capabilities

in support of homeland security—from the most difficult anti-access scenario to humanitarian relief. As new generations of technology proliferate among potential adversaries, we also are reminded of the need to keep pushing technology forward. In less than one hundred years, we elevated from a Kitty Hawk biplane flying 100 feet on a 12-second flight, to a host of sophisticated, stealthy aerial vehicles capable of reaching any place in the world, and an array of satellites that circle the globe continuously. We do not rest on these achievements, but instead engage a new generation of innovation. Therefore, our mission is to make calculated research, development, and procurement decisions with the resolve to integrate all of our combat, information, and support systems into an enterprise architecture that contributes joint air and space capabilities to help win the Nation's wars.

Meeting these requirements also warrants our continued transformation into an expeditionary force with the culture, composition, and capabilities to fulfill our evolving operational tasks. As the scope of global contingencies requiring American involvement has multiplied, we have witnessed the substantial value of agility, rapid response, and integration. Thus, we are becoming ever more responsive in time, technology, and training, and in the process, we are elevating Air Force contributions to joint capabilities, while developing our airmen as joint warfighters.

A year ago, Secretary Rumsfeld laid out a number of key priorities for the Department of Defense (DOD). All of these—from pursuing the global war on terrorism and strengthening joint warfighting capabilities, to streamlining the DOD processes and improving interagency integration—demand across-the-board changes in the way the Defense Department operates. The Air Force has taken advantage of this opportunity to evaluate and strengthen our capabilities, and to fundamentally drive our investment strategy.

As we contemplate more than a decade of unprecedented success using air and space power, we recognize that we never fight alone. The emerging interdependence of joint, coalition, and alliance partnerships throughout a decade of contingency warfare has been a profound lesson learned. Through cooperative planning, we will realize the full potential of our Service—bringing to bear fully integrated air and space capabilities.

It is our imperative to approach this planning and integration with innovation and vision, fundamentally focused on capabilities. All of the armed forces are focusing on meeting the Quadrennial Defense Review's "1–4–2–1" force-shaping construct, by defining the fundamental capabilities required to meet the challenges of a changing world. These are: to defend the United States through Homeland Security; to deter aggression and coercion in the four critical regions of Europe, Northeast Asia, Southwest Asia and the Asian littorals; to swiftly defeat aggression in overlapping major conflicts while being capable of decisive victory in one of those conflicts; and to conduct a number of smaller scale contingencies. A revitalized, capabilities-focused approach to operational military requirements will allow us to meet these missions.

Our focus on capabilities for an uncertain future has inspired us to adapt a new the way we organize, train, and equip our forces. We have begun by developing Task Force Concepts of Operations (TF CONOPS), which will define how we will fight and integrate our air and space capabilities with joint, coalition, and alliance forces. The requirements that emerge from these operational concepts will guide a reformed acquisition process that will include more active, continuous partnerships among requirement, development, operational, test, and industry communities working side-by-side at the program level.

This process can only be successful with the help of a vibrant defense industry. Yet today the aerospace industry is consolidating to a point that threatens to diminish the advantages of competition. This, in turn, can lead to loss of innovation, diminished technical skill base, lower cost efficiencies, and other challenges. We must foster increased competition to ensure the long-term health of an industrial sector critical to our national security. While the Air Force will continue to advance the vision and associated capabilities for air and space, we also must challenge industry in order for it to stay on the cutting edge of technology and efficient management practices.

Finally, transforming our force will not be possible without a process to educate, train, and offer experience to the right mix of Active Duty, Air National Guard, Air Force Reserve, and civilian airmen who understand the nature of our changing security environment. To achieve this, we will evolve what we have traditionally called the "personnel" function in new ways so as to blend Professional Military Education, advanced academic degrees, and assignment policies under the auspices of "Force Development."

This is the United States Air Force in 2003—inherently innovative, tirelessly dedicated, and comprised of the very best airmen and capabilities in the world to

ensure American security and defend her interests. This is what our nation expects, and we will continually meet that expectation.

WHAT WE DO

The United States armed forces exist to fight and win our Nation's wars, which no service can accomplish alone. The Air Force's pivotal role is to deliver fully capable and integrated air and space power to the Joint Force Commander (JFC). By dominating the media of elevation, the Air Force offers unique warfighting capabilities that leverage the strengths of surface forces and expand the range of potential effects.

Air and space are realms with unlimited horizons for discovery and development. While the Air Force has made tremendous strides in realizing the visions of early airmen and exploiting the operational potential in each medium, we know there is an array of capabilities as yet undiscovered. As the Air Force strives to realize these possibilities, we deliver a multitude of air and space achievements for joint warfighting.

Although relatively short, Air Force history reveals fundamental competencies that are core to developing and delivering air and space power—those unique institutional qualities that set the Air Force apart from the other services and any other military force in the world. By identifying and keeping these competencies foremost in our vision, we are able to more effectively advance the unique capabilities, as well as the ultimate effects, the Air Force provides to the joint force and the Nation.

The Air Force continually develops areas of expertise that make us the preeminent air and space force in the world. Previously, we distilled these into six distinctive capabilities which we referred to as our "core competencies"—Air and Space Superiority, Global Attack, Rapid Global Mobility, Precision Engagement, Information Superiority, and Agile Combat Support. However, just as our concepts of operations and capabilities continuously evolve, so also does the way in which we articulate Air Force competencies. With deeper refinement, we learned there are more fundamental elements to what we are as an Air Force and how we develop our capabilities for joint warfighting. These are our underlying institutional air and space core competencies—those that, in fact, make the six distinctive capabilities possible: Developing Airmen, Technology-to-Warfighting, and Integrating Operations. These three air and space core competencies form the basis through which we organize, train, and equip and from which we derive our strengths as a service.

*(1) Developing Airmen—The heart of combat capability*

The ultimate source of air and space combat capability resides in the men and women of the Air Force. The potential of technology, organization, and strategy are diminished without professional airmen to leverage their value. Our Total Force of Active Duty, Guard, Reserve, and civilian personnel are our largest investment and most critical asset. They are airmen, steeped in our expeditionary Service ethos. Therefore, from the moment they step into the Air Force through their last day of service, we are dedicated to ensuring they receive the precise education, training, and professional development necessary to provide a quality edge second to none. The full spectrum capabilities of our Air Force stem from the collective abilities of our personnel; and the abilities of our people stem from career-long development of professional airmen.

*(2) Technology-to-Warfighting—The tools of combat capability*

The vision of airmen in employing air and space power fundamentally altered how we address conflict. As the leader in military application of air and space technology, the Air Force is committed to innovation and possesses a vision to guide research, development, and fielding of unsurpassed capabilities. Just as the advent of aircraft revolutionized joint warfighting, recent advances in low observable technologies, space-based systems, manipulation of information, precision, and small, smart weapons offer no less dramatic advantages for combatant commanders. The Air Force nurtures and promotes its ability to translate vision into operational capability in order to produce desired effects. Our innovative operational concepts illuminate the capabilities we need, allowing us to develop unsurpassed capabilities to prevail in conflict and avert technological surprise.

The F/A–22 is demonstrative of this ability to adapt technology to warfighting capabilities. Originally envisioned as an air superiority fighter, it has been transformed into a multi-role system. The F/A–22 not only brings to bear warfighting capabilities without equal for decades to come, but also includes those we did not foresee at its inception. Collectively, the platform's supercruise, stealth, maneuverability, and novel avionics will deliver the ability to create crucial battlefield effects

to the hands of the warfighter, and allow access to revolutionary concepts of operations.

*(3) Integrating Operations—Maximizing combat capabilities*

Effectively integrating the diverse capabilities found in all four services remains pivotal to successful joint warfighting. The Air Force contributes to this enduring objective as each element of air and space power brings unique and essential capabilities to the joint force. Our inherent ability to envision, experiment, and ultimately execute the union of a myriad of platforms and people into a greater, synergistic whole is the key to maximizing these capabilities. In so doing, we are able to focus acquisition and force planning on systems that enable specific, effects-based capabilities, rather than on individual platforms.

Embedded in our exploration of innovative operational concepts is the efficient integration of all military systems—air, land, maritime, space, and information—to ensure maximum flexibility in the joint delivery of desired effects across the spectrum of conflict, from war to operations short of war. However, effective integration involves more than smart technology investment—it also requires investigation of efficient joint and service organization and innovative operational thinking. Thus, investments in our people to foster intellectual flexibility and critical analysis are equally as important as our technology investments.

Collectively, our air and space core competencies reflect the visions of the earliest airmen and serve to realize the potential of air and space forces. We foster ingenuity and adventure in the development of the world's most professional airmen. We seek to translate new technologies into practical systems while we encourage intellectual innovation at every level of war. And, we drive relentlessly toward integration in order to realize the potential and maturation of air and space capabilities.

Our proficiency in the three institutional air and space core competencies underpins our ability to deliver the Air Force's six distinctive capabilities in joint warfighting. In turn, our capabilities enable desired effects across the spectrum of joint operations through our task forces drawn from our air and space expeditionary forces. The results of this relationship between core competencies, distinctive capabilities, and operational effects are manifest in the array of successful missions the Air Force accomplished in the past year and those we continue to execute.

*Expeditionary Construct*

Our core competencies reflect a legacy of innovation and adaptation to accomplish our mission. This point is underscored by the fact that, in spite of over a 30 percent reduction in manpower in the past twelve years, we have faced an exponential increase in worldwide taskings. Intensifying operations tempo (OPSTEMPO) requires significant changes in the way our force trains, organizes, and deploys to support JFC requirements. We are a truly expeditionary force—the nature of our "business" is deployed operations.

The Air Force meets JFC requirements by presenting forces and capabilities through our Air and Space Expeditionary Force (AEF) construct. This divides our combat forces into ten equivalent AEFs, each possessing air and space warfighting and associated mobility and support capabilities. A key element of our ability to deliver these tailored and ready expeditionary forces is our development of Task Force Concepts of Operations. Our TF CONOPS describe how we fight and how we integrate with our sister services and outside agencies. They are the fundamental blueprints for how we go to war. Combined with our AEF construct—the principal tool we use to present expeditionary wings, groups, and squadrons—TF CONOPS will guide our decisions in operational planning, enable us to provide scalable, quick-reacting, tasked-organized units from the ten standing AEFs; and sustain our ability to ensure trained and ready forces are available to satisfy operational plans and contingency requirements.

The AEF construct incorporates a 15-month cycle during which two AEFs are designated as lead for a 90-day "eligibility" period. During this period, the two are either deployed or on alert for daily, worldwide expeditionary taskings, for which they are tailored and presented to the JFC as expeditionary squadrons, groups, and wings (depending on the specific requirement.) Meanwhile, the remaining eight AEFs are in various stages of reconstituting, training, or preparatory spin-up. It is during this preparatory time (approximately two months) that we integrate the training-to-task of AEF squadrons immediately prior to their on-call window.

Yet, it is important to note that while our combat forces cycle through deployment vulnerability periods, they sustain wartime readiness throughout the 15-month training and preparation cycle—a critical driver of our 90-day eligibility window. Our AEF cycle thus precludes the need for "tiered" readiness by allowing our combat forces to remain current and capable for any contingency or operational plan.

While ensuring necessary capabilities for the JFC, AEF cycles allow us to provide our airmen with a more stable and predictable environment in which to train, refit, and equip. In addition, AEF scheduling makes it easier and more practicable for the Air Reserve Component (ARC) forces—Air Force Reserve Command (AFRC) and Air National Guard (ANG)—to bring their essential contributions to bear by allowing them to plan definitive absences from their civilian employment. This is a critical advantage of the AEF construct, as ARC forces comprise nearly half of the forces assigned to AEFs and contribute the majority of forces for some mission areas.

*Operations in 2002*

Confident in our air and space capabilities, and committed to meeting any mission tasked, the Air Force completed an unprecedented array of operations and exercises in 2002. From the mountain ranges in Afghanistan and the jungles of the Philippines to the deserts of the Middle East, and across every continent and body of water, the Air Force joined with land and naval forces to secure America's national objectives. With each mission, the joint force grows more capable as it applies vision, experimentation, and integration to every undertaking. We do not act as individual services, but in concert as joint warfighters, as we prevail in the war on terrorism and in all undertakings.

Assuring our Nation's citizens, the Air Force conducts a range of alert postures involving more than 200 military aircraft at over 20 airbases for Operation NOBLE EAGLE (ONE). In conjunction with unprecedented NATO airborne warning support and other U.S. assets, we have provided continuous combat air patrols over sensitive/high risk areas, and random patrols over other metropolitan areas and key infrastructure. Last year, we flew over 25,000 ONE fighter, tanker, airlift, and airborne warning sorties, made possible only through the mobilization of over 30,000 reserve component airmen. In fact, the ANG and AFRC have effected over 75 percent of the total ONE missions. We will continue this critical mission, as we execute our most fundamental responsibility—homeland defense.

Throughout Operation ENDURING FREEDOM (OEF), the USAF has maintained a continuous, steady-force presence in Afghanistan and the rest of the area of responsibility with more than 14,000 airmen. Air Force assets provide crucial intelligence and situation awareness, combat power, and support capabilities for the combatant commander. A key reason for American military success in the region is the performance of Air Force special operations airmen. Working in teams with other special forces, ground units, and coalition elements, airmen special operators heroically bring to bear the full weight of air and space capabilities—from the ground. They introduce our adversaries to the full lethality of our airmen, fully integrated on the ground, in the air, and from space.

Fully engaged in all aspects of the war on terrorism, from mobility to close air support, our aircraft and crews flew more than 40,000 OEF sorties in 2002—over 70 percent of all coalition sorties. Over 8,000 refueling missions marked the linchpin capability for the joint fight—the tanker force—while the magnificent achievements of airlift assets rounded out overwhelming mobility efforts. Simply put, Air Force mobility forces made operations in a distant, land-locked nation possible.

Beyond air operations, we operated and maintained several constellations of earth-orbiting satellites, and in 2002 we launched 18 missions with a 100 percent success rate—including the first space launches using Evolved Expendable Launch Vehicles. These activities bolstered America's assured access to space and ensured vigorous, global intelligence, surveillance and reconnaissance (ISR), missile warning, precision navigation and timing, communications, and weather systems. In addition, manned, unmanned, and space ISR assets not only delivered unprecedented battlefield awareness, but with the Predator unmanned aerial vehicle (UAV), also introduced transformational combat capabilities.

ONE and OEF levied particularly heavy demands on our security forces. In CONUS and forward locations, increased alert postures warranted significant increases in security personnel who constitute a critical element of our force protection capabilities. These demands have raised our force protection posture worldwide and have forced us to adjust to a new "steady state" condition. Security forces bear the brunt of the adjustment effort despite a resultant baseline shortfall of approximately 8,000 personnel to meet the alert postures. In the near term, we involuntarily extended for a second year nearly 9,500 ARC security forces. However, in order to relieve these ARC forces, we concluded a two-year agreement with the Army for short-term support, and initiated several ongoing efforts to combine technology, new processes, and some manpower shifts to achieve a long-term adjustment to this new era.

As we adjust, we continue to deliver force protection through the integrated application of counter and antiterrorism operations, and preparedness for chemical, biological, radiological, nuclear, and explosive (CBRNE) incidents. We employ a tailored selection and application of multi-layered active and passive, offensive and defensive measures. Intelligence and counterintelligence programs support this integrated effort and remain critical to our success. In this regard, we continued to develop and employ all-source intelligence systems; cross-functional intelligence analysis procedures; and an operational planning process to implement Force Protection operations that deter, detect, deny, and destroy threats. Our goal is to see first, understand first, and act first.

Though engaged in these security enhancements and the global war on terrorism, our combat operations were not limited to OEF in 2002. Iraqi forces fired on coalition aircraft over 400 times during 14,000 sorties supporting Operations NORTHERN WATCH (ONW) and SOUTHERN WATCH (OSW). The Air Force maintained a continuous, regional presence of more than 9,000 airmen, while air and space assets provided vital intelligence, situation awareness, and indications and warning to monitor Iraq's compliance with United Nations' directives.

Whether on the ground or in the skies, our airmen also conducted a host of other missions above-and-beyond standing security requirements around the globe. Even though the war on terrorism is our national military focus, airmen joined soldiers, sailors, and marines in the Balkans, South America, Europe, Asia, and around the world to assure our friends and allies, while deterring and dissuading our adversaries.

Worldwide humanitarian and non-combat evacuation operations missions remain other key tasks for Air Force personnel. In 2002, for example, airlift crews exceeded 2.4 million airdropped daily ration deliveries in Afghanistan, evacuated allied personnel at threatened locations around the world, and flew typhoon relief missions to Guam, while our explosive ordnance specialists removed unexploded munitions in Africa. Yet, while conducting unprecedented food, medical, civil engineering, and evacuation relief efforts in warring regions, we were also on call to perform critical, quick-response missions during natural or man-made crises at home. Through explosive ordnance disposal, firefighting, law enforcement support, and rapid medical response expertise, we conducted daily operations in support of local, state, and federal agencies. During the wildfire season, ANG and AFRC C–130s equipped with modular airborne fire fighting systems flew nearly 200 sorties while assisting U.S. Forest Service firefighting efforts in numerous states. In addition, when Hurricane Lili endangered Louisiana, Air Force aeromedical and critical care forces rolled in with C–9 aircraft to transport and safeguard 40 patients from threatened hospitals.

*Training Transformation*

Training is a unique American military strength. As potential adversaries work to overcome our technological superiority, it is imperative we enhance this strength through improved proficiency at the tactical level and integration at the joint level. Training is integral to our core competencies and the critical enabler for military capabilities, so we are engaged with the other services, unified commands, and the Office of the Secretary of Defense (OSD) in developing and implementing a training transformation plan. Our objective is to train as we will fight, and increase the joint context of our exercises through live, virtual, distributed, and constructive environments. It is the realism of this training that gives us the edge in combat. This involves not only modernizing the integration of space and information operations on our ranges, but also planning for their sustainment to meet future test and training missions while implementing environmentally sound use and management to ensure long term availability. Additionally, to expand range support for current and emerging missions, we are embarking on a new effort to identify and procure environmental, airspace, and spectrum resources at home and abroad. Balancing competing economic and environmental needs for these resources is a growing challenge we face with our regulatory and community partners. To support this effort, DOD developed the Range and Readiness Preservation Initiative. This legislation recommends clarification to environmental laws that, as currently written and interpreted, can adversely affect resources available to support training activities at ranges.

*Joint Chiefs of Staff (JCS) Exercises, Interoperability Training, and Experimentation*

We advanced joint and combined interoperability skills with our sister services and those of 104 nations throughout 111 JCS exercises and Joint Task Force (JTF) experimentation, conducted in 40 foreign countries. Exercises ranged from large field training such as BRIGHT STAR, to command post exercises like POSITIVE RESPONSE, to smaller, but equally valuable, humanitarian exercises, as in the

school construction, well drilling, and medical clinic visits of NEW HORIZONS—JAMAICA. These activities provided realistic training and enhanced the effectiveness of all participating nations' forces.

*Task Force Enduring Look*

Success in future operations hinges upon our ability to learn from previous operations and exercises. To ensure we learn from ongoing operations and adapt accordingly, we established Task Force Enduring Look (TFEL). TFEL is responsible for Air Force-wide data collection, exploitation, documentation, and reporting for our efforts in ONE/OEF. The objective for TFEL is clear—provide superior support to the warfighter, and properly recognize and apply lessons learned during rather than only at the conclusion of these operations.

Through extensive investigation and analysis, TFEL examines joint warfighting effectiveness, determines implications, and shapes future Air Force transformation of expeditionary air and space power. The task force documents lessons learned in a variety of products that cover every conceivable subject matter. As derivative campaigns unfold, TFEL will broaden its assessments in follow-on reports. Applying the lessons in these reports and adapting from our past experiences will help ensure we prevail in future operations.

We are able to accomplish the full spectrum of air and space missions and improve our capabilities through lessons learned, by focusing on the best way to organize, train, and equip. Creativity, ingenuity, and innovation are the hallmarks of all that we do, all of which begins with our people.

WHO WE ARE

*"No arsenal and no weapon in the arsenals of the world is so formidable as the will and moral courage of free men and women. It is a weapon our adversaries in today's world do not have. It is a weapon that we as Americans do have."* President Ronald Reagan, 20 January 1981

America is blessed with vast resources, and chief among these is her people. In the same way, the Air Force relies on the officers, enlisted, civilians, and contractors that comprise our Total Force—Active Duty, Guard and Reserve—for cultural strength and unbridled skill. Air Force strength will never reside in systems alone, but in the airmen operating them. Nor will our capabilities improve solely through technology, but instead through the adaptive insight of our creative and selfless professionals.

Therefore, we recruit and retain a remarkably diverse group to ensure we reach the fullest potential of air and space forces. Their backgrounds reflect the cross-section of American culture—all races, religions, economic and educational backgrounds, skill and management levels, men and women—and make this Air Force the tremendous organization it is today. Just as diverse individual citizens find unity in the term American, our personnel embrace an identity and fundamental perspective as Airmen.

The underlying qualities found in all airmen emanate from our core values—integrity first, service before self, and excellence in all that we do. Embedded in these core values are the inherent characteristics of our confident, capable airmen—courage, tenacity, professionalism, vision, pride, and, when faced with seemingly insurmountable obstacles, heroism. Indeed, today's airmen carry on the traditions and visions of the earliest generation of airmen while preparing for the challenges of the future.

The diversity of our airmen energizes the advancement of America's air and space power. Airmen embrace transformational ideas and seek to apply them to every aspect of the Air Force, from organizational constructs to concepts of operations and employment. They are able stewards of the nation's space programs, advancing ideas and technologies for national security, as well as for the environmental and economic benefit of our Nation and the world. And yet, ultimately our standout advantage is our warrior airmen themselves, who demonstrate skills and dedication in combat unsurpassed by any in history. Whether maintaining safe skies across the United Nations' sanctioned no-fly zone in Iraq, hunting down terrorists in the jungles of the Philippines, or paying the ultimate price while rescuing fellow Americans in a battle on an Afghan ridge, our airmen are proven combat veterans. Their selflessness resonates the very best of our Service.

Airmen are expeditionary—our natural state of operations is not "home station," but rather, deployed. After two successful cycles, our AEF construct has been validated as an effective means of meeting our Nation's expeditionary requirements. Yet we continue to enhance the construct, by initiating significant organizational change to ensure nearly every airman belongs to one of the ten AEFs. The effect has been a change to our airmen's mindset and culture, where an individual's AEF associa-

tion cultivates an expeditionary perspective and a clearer appreciation for joint warfighting requirements and capabilities.

*Force Development—A New Leadership Development Paradigm*

In the past, we addressed aspects of career development, education, and assignments individually, but not necessarily in a coordinated, connected approach. Recognizing this, and to prepare for the future more ably, we introduced a systemic, deliberate force development construct that evolves professional airmen into joint force warriors. This construct coordinates doctrine and policies, concentrated to provide the right level, timing, and focus of education, training, and experience for all airmen, while encompassing personal, team, and institutional leadership skills across tactical, operational, and strategic levels.

In the 21st Century, we need air and space warriors with mastery of their primary skills and others who possess competency beyond their own specialty. However, this diversity must be deliberate to ensure the correct skills are paired according to institutional requirements. Force development encourages many to obtain a deep perspective in their functional area, but at the same time offers the broader perspective we need to complement our leadership team. We begin this transformation with the Active Duty officer corps and will eventually encompass the civilian, enlisted, and Reserve component to better meet the expanding challenges of tomorrow.

*Education and Technical Training—Emphasis on Joint Leadership/Warfare*

As opportunities resident in advancing technologies unfold, it is imperative that the Air Force be able to draw upon a vibrant collection of educated, technically skilled, and technologically savvy airmen—both uniformed and civilian alike. We are answering this fundamental need in fiscal year 2003 with aggressive and innovative initiatives to enhance the abilities and breadth of our force. Agile, flexible training is an essential investment in human capital, and our initiatives will ensure our investment delivers the right training to the right people at the right time.

In August 2002, we began our groundbreaking Enlisted-to-Air Force Institute of Technology (AFIT) Program. An initial cadre of senior NCOs began receiving world-class, graduate education to optimize them for greater responsibilities and challenging follow-on assignments. We will also provide a major influx of officers into AFIT, Naval Postgraduate School (NPS), and civilian institutions. In addition, because more than 42 percent of our civilian force will be eligible for retirement in the next five years, we are committing significant resources to pay for advanced education as well as cross-functional career broadening.

Future military missions and contingencies will require greater sophistication and understanding of the security environment, and our expeditionary force requires airmen with international insight, foreign language proficiency, and cultural understanding. We are working diligently to expand the cadre of professionals with such skill sets and experiences. Our education initiatives will contribute to a major corporate culture shift that fosters appropriate development throughout our airmen's careers to meet evolving force requirements.

*Diversity*

Foremost among our efforts to enhance the capabilities of our airmen is a passionate drive for diversity. Diversity is a warfighting issue; it is a readiness issue. We must attract people from all segments of American society and tap into the limitless talents and advantages resident in our diverse population if we hope to reach our fullest potential as a fighting force. Nurturing rich representation from all demographics opens the door to creativity and ingenuity, offering an unparalleled competitive edge for air and space development. Today's multi-threat world also mandates that we invigorate in our airmen the ability to effectively think across cultural boundaries and functional paradigms (or stovepipes). We will thus recruit, train, and retain airmen without intellectual boundaries, uniquely capable of integrating people, weapons, ideas, and systems to achieve air and space dominance.

*Recruiting*

It takes tremendous effort to identify and develop such airmen, yet the return for the nation is immeasurable. Increased advertising, an expanded recruiting force with broader access to secondary school students, and competitive compensation prepare us to meet recruiting goals. Despite the challenge of mustering such a diverse and skilled collection of Americans, we exceeded our fiscal year 2002 enlisted recruiting goals and expect to surpass fiscal year 2003 objectives. We will adapt our goals to meet new force objectives; however, the capacity limitations of Basic Military Training and Technical Training School quotas will continue to challenge Total Force recruiting efforts.

Officer recruitment presents similar challenges, yet we continue to attract America's best and brightest. However, we are particularly concerned with military and civilian scientists and engineers. We fell short of our accession goal for this group and have begun all-out recruitment and retention efforts for these critical specialties. For example, in fiscal year 2003 we plan to begin a college sponsorship program to attract scientists and engineers from universities lacking ROTC programs. In addition, we continue to find recruiting health care professionals especially difficult, so we are making adjustments to ensure improvement.

We will also closely monitor ARC recruitment. Historically, the ANG and AFRC access close to 25 percent of eligible, separating Active Duty Air Force members (i.e. no break in service.) Continued high OPSTEMPO may negatively impact our efforts in attracting Air National Guardsmen, as well as drawing separating Active Duty airmen to the Air Force Reserve. As a result, recruiting will have to "make up" a substantial portion of accessions from that market by developing alternatives.

*Retention*

The Air Force is a retention-based force. The critical skill sets we develop in our airmen are not easily replaced, so we expend every effort to retain our people—the impetus for our "re-recruiting" efforts. Overall retention plans include robust compensation packages that reward service, provide for a suitable standard of living, ensure a high quality of life, and retain the caliber of professionals we need to decisively win America's wars.

For fiscal year 2002, it was difficult to calculate accurate retention results due to Air Force implementation of Stop Loss. Nonetheless, we continue to reap the benefits of an aggressive retention program, aided by bonuses, targeted pay raises, and quality of life improvements. Introducing the Critical Skills Retention Bonus for select officer specialties reinforces our commitment to target specific skills suffering significant retention challenges. However, many airmen retained under Stop Loss will separate throughout fiscal year 2003—a fact of particular concern for our rated force.

Bonuses and special pay programs continue to be effective tools in retaining our members. The ANG has placed particular emphasis on aircraft maintenance fields, security forces, and communication and intelligence specialists, among others, by offering enlistment and reenlistment bonuses, Student Loan Repayment Program, and the Montgomery GI Bill Kicker Program. Another example is the flexible Aviation Continuation Pay (ACP) program—an important part of our multi-faceted plan to retain pilots. In conjunction with our rated recall program, our fiscal year 2002 plan resulted in a substantial increase in committed personnel. We have a similarly designed ACP program in fiscal year 2003, and developed extensions to include navigators and air battle managers.

*Summary*

Regardless of AEF deployment or home station missions, our airmen accomplish their duties with firm commitment and resolute action. It's what we do. It's who we are: a practical, technically sound, ingenious force of uniformed and civilian airmen derived from this richly diverse nation to create the world's premier air and space power.

## WHERE WE'RE GOING

The first hundred years of powered flight witnessed tremendous and enduring innovation. We commemorate this centennial during 2003 with the theme, Born of Dreams, Inspired by Freedom, which recognizes the remarkable accomplishments of generations of airmen. Today's airmen are equally impassioned to bring dreams to reality as we pursue our vision of tomorrow's Air Force, Unlimited Horizon. Through this vision, we build a bridge from today's existing capabilities to those required to win tomorrow's wars.

Ultimately our success will be measured by our ability to provide our forces with assured freedom to attack and freedom from attack. Achieving such victory in tomorrow's battlespace will demand our full integration with fellow services, allies, and coalition partners—an essential part of the expeditionary construct. Through our security cooperation efforts, we build these international defense relationships and allied capabilities to ensure we have the access, interoperability, and international support for our worldwide commitments. Toward this requirement, we are working with our sister services to develop truly joint concepts of operations that integrate the full spectrum of land, sea, air, space, and information warfighting capabilities. When America places its men and women in uniform into harm's way, we owe them preeminent resources, planning, and organization to achieve victory over any adversary.

*Capabilities-Based CONOPS*

While adapting to the new strategic environment, our principal focus has been transitioning from a platform-based garrison force to a capabilities-based expeditionary force. No longer platform-centric, we are committed to making warfighting effects, and the capabilities we need to achieve them, the driving force behind our ongoing transformation. From this point forward, all of our operational, programming, and budget decisions will be supported by a predefined capability.

Our emerging TF CONOPS will help make this essential shift by providing solutions to a variety of problems warfighters can expect to encounter in the future. Whether detailing our plans for operating in an anti-access environment or identifying how to deliver humanitarian rations to refugees, TF CONOPS lend focus on the essential elements required to accomplish the mission. They cover the complete spectrum of warfighting capabilities (deep strike, information, urban, psychological operations, etc.) and enable us to tailor forces (expeditionary wings, groups, or squadrons) from existing AEFs to meet JFC's requirements. Responsibility for CONOPS development falls to the Major Commands, with a senior officer on the HQ USAF Air Staff assigned to each CONOPS to serve as their "Champion," facilitating the process.

TF CONOPS directly support Secretary Rumsfeld's efforts to free scarce resources trapped in bureaucracy and push them to the warfighter. They will also be the focal point for a capabilities-based Program Objective Memorandum (POM). In support of this effort, our Capabilities Review and Risk Assessment analyzes and assesses shortfalls, health, risks, and opportunities, while prioritizing required future capabilities. This helps CONOPS developers articulate any disconnects between required capabilities and developing programs, while providing senior Air Force leadership an operational, capabilities-based focus for acquisition program decision-making. TF CONOPS include:

—Global Strike Task Force (GSTF) employs joint power-projection capabilities to engage anti-access and high-value targets, gain access to denied battlespace, and maintain battlespace access for all required joint/coalition follow-on operations.

—Global Response Task Force (GRTF) combines intelligence and strike systems to attack fleeting or emergent, high-value, or high-risk targets by surgically applying air and space power in a narrow window of opportunity, anywhere on the globe, within hours.

—Homeland Security Task Force (HLSTF) leverages Air Force capabilities with joint and interagency efforts to prevent, protect, and respond to threats against our homeland—whether within or beyond U.S. territories.

—Space and Command, Control, Communications, Computers, Intelligence Surveillance, and Reconnaissance (Space & $C^4ISR$) Task Force harnesses horizontal integration of manned, unmanned, and space systems to provide persistent situation awareness and executable decision-quality information to the JFC.

—Global Mobility Task Force (GMTF) provides regional combatant commanders with the planning, command and control ($C^2$), and operations capabilities to enable rapid, timely, and effective projection, employment, and sustainment of U.S. power in support of U.S. global interests—precision delivery for operational effects.

—Nuclear Response Task Force (NRTF) provides the deterrent "umbrella" under which conventional forces operate, and, if deterrence fails, avails a rapid scalable response.

—Air and Space Expeditionary CONOPS is the overarching context, which identifies and sequences distinctive capabilities and broad-based functions that air and space power provide the JFC to generate desired effects for national military objectives.

The Air Force is transforming around these Task Force Concepts of Operations. In addition to serving as a roadmap for operators, the TF construct will form the basis for resource allocation, future system acquisitions, and POM submissions in order to find capabilities-based solutions to warfighter problems.

*Science and Technology (S&T)—Wellspring of Air and Space Capabilities*

Reaching these warfighter solutions rests in large measure with research and development. Through robust investment and deliberate focus in science and technology, the Air Force invigorates our core competency of technology-to-warfighting. Combined with innovative vision, S&T opens the direct route towards transforming air and space capabilities. Therefore we continue long-term, stable investment in S&T to ensure we realize future capabilities, as well as those that may immediately affect existing systems.

We are improving our S&T planning and collaboration with other services and agencies to ensure: we: (1) encourage an operational pull that conveys to the S&T community a clear vision of the capabilities we need for the future; (2) address the full spectrum of future needs in a balanced and well-thought out manner; and (3) enhance our ability to demonstrate and integrate promising technologies. Some of these new technologies—UAV systems, laser-based communications, space-based radar, and others—show clear promise for near-term, joint warfighting applications. Others present opportunities we can only begin to imagine. We are exploring each of these technologies, and our investment will deliver the required capabilities of our CONOPS.

*Executive Agent for Space*

Embedded in all of our TF CONOPS, and indeed within most military operations, is an extensive reliance on systems resident in space. The Air Force proudly fulfills the role of Department of Defense Executive Agent for Space with confidence and enthusiasm. Our ability to execute this tremendous responsibility stems from a natural outflow of our core competencies and distinctive capabilities. Accordingly, and in conjunction with the other services and agencies, we are shaping a new and comprehensive approach to national security space management and organization.

Our capstone objective is to realize the enormous potential in the high ground of space, and to employ the full spectrum of space-based capabilities to enable joint warfighting and to protect our national security. The key to achieving this end is wholesale integration: through air, land, space, and sea; across legacy and future systems; among existing and evolving concepts of operations; and between organizations across all sectors of government. We will continue to deliver unity of vision, effort, and execution to fulfill our mission of delivering the most advanced space capabilities for America.

*Drawing Effects from Space*

Our horizon is truly unlimited, extending beyond the atmospheric environs of airpower to the reaches of outer space. Our proud Air Force tradition of airpower is joined by an equally proud and continually developing tradition of space power.

In the early days of the space age, only those at the strategic level received and exploited the benefits of space capabilities. The current state of affairs, however, is decidedly different. The former distinctions between classified and unclassified programs among military, civil, and commercial applications are growing increasingly blurred—in some cases, they are virtually seamless. In short, space capabilities now are woven deeply into the fabric of modern society, and they have altered forever the way we fight wars, defend our homeland, and live our lives.

It is in this context and this understanding of the widespread and increasing importance of space systems that we strive to meet present and future national security challenges by providing dominant space capabilities that will:

—*Exploit Space for Joint Warfighting*.—Space capabilities are integral to modern warfighting forces, providing critical surveillance and reconnaissance information, especially over areas of high risk or denied access for airborne platforms. They provide weather and other earth-observation data, global communications, precision navigation and guidance to troops on the ground, ships at sea, aircraft in flight, and weapons en route to targets. All of these capabilities, and more, make possible the tremendous success our joint warfighters achieve during combat operations.

We will enhance these existing capabilities and, where it makes sense, pursue new ones such as the Transformational Communications System (TCS), which will strive to dramatically increase bandwidth and access for warfighters; and Space Based Radar, which will complement the airborne Joint Surveillance Target and Attack Radar System (JSTARS) while migrating Ground Moving Target Indicators (GMTI) into space. We will also develop methods and technologies to enhance our nation's ability to conduct rapid and accurate global strike operations anywhere in pursuit of U.S. interests.

—*Pursue Assured Access to Space*.—We cannot effectively exploit space for joint warfighting if we do not have responsive, reliable, and assured access to space. In August 2002, the new Evolved Expendable Launch Vehicle got off to a strong start with the successful launch of Lockheed Martin's Atlas V booster. Boeing's Delta IV program added to the Nation's quiver of modern launch vehicles with liftoff in November 2002. We will also pursue advanced and highly versatile reusable launchers and small expendables with extremely short response times to achieve long-term assured access, while taking the necessary steps to maintain and improve our space launch infrastructure.

—*Preserve our Freedom to Act in Space*.—We must be able to act freely in space, or risk losing those capabilities essential to joint warfighting. We initiated efforts to increase our space situation awareness, beginning with the new Space Situation Awareness Integration Office at Air Force Space Command, and a similar program at the Space and Missile Systems Center. Future efforts are planned to develop strategy, doctrine, and programs to improve the protection of our own space capabilities while denying the benefits of joint space capabilities to our adversaries.

As it is with all Air Force capabilities, the most important resource for national space capabilities is neither technological nor fiscal—it is human. Our Space Professional Strategy fulfills a Space Commission recommendation to develop space professionals and nurture a cadre to lead our national security space endeavors at all levels in the decades ahead. These space-expert airmen will be the core stewards of space operations, and shoulder the responsibility for aggressively advancing joint warfighting capabilities into the high ground frontier.

*Horizontal Integration of Manned, Unmanned, and Space Assets*

The essence of transformation is found in leveraging the nation's technological dominance to create maximum asymmetrical advantage. Airmen seek unrestricted boundaries when looking at war planning from a theater-wide perspective, or talking about national elements of power. Simply stated, it is in the way we think—we must take advantage of it.

Our foremost objective is to develop the capability to conduct rapid and precise operations to achieve desired effects and shape the battlespace for the joint force. This requires interfacing numerous DOD and national assets—the seamless, horizontal integration of manned, unmanned, and space-based systems. An essential element is designing systems that use digital-level, machine-to-machine conversations to expedite data flow and ensure the JFC receives timely, decision-quality information. Such integration will dramatically shorten the find, fix, track, target, engage, and assess ($F^2T^2EA$) cycle. In the end, we know that neither JFC's guiding operations, nor special operators putting iron on targets, care what source provides the target data. It is an effect they seek, and what we will provide.

Key to the warfighter's success is Predictive Battlespace Awareness (PBA). PBA requires in-depth study of an adversary well before hostilities begin. Ultimately we want to be able to anticipate his actions to the maximum extent possible. PBA-derived insights allow us to utilize critical ISR assets for confirmation rather than pure discovery once hostilities begin. We are then able to analyze information to assess current conditions, exploit emerging opportunities, anticipate future actions, and act with a degree of speed and certainty unmatched by our adversaries.

Along this path, we are transitioning from collecting data through a myriad of independent systems (Rivet Joint, AWACS, JSTARS, space-based assets, etc) to a Multi-sensor Command and Control Constellation ($MC^2C$) capable of providing the JFC with real-time, enhanced battlespace awareness. Today, this transition is restricted by the necessity to rely on Low Density/High Demand (LD/HD) $C^4ISR$ assets. The limitation inherent in LD/HD platforms forces us to shift their exploitation capabilities between theaters to cover emerging global threats and events. This suboptimizes overall battlespace awareness and limits our efforts at predictive analysis. In the interim, responsive space-based ISR assets will help mitigate our overstressed LD/HD systems. Yet ultimately, we need a synergistic combination of military and commercial assets, advanced data processing capabilities, and assured reachback to achieve true battlespace awareness.

In the future, a single wide-body platform employing tunable antennas and sensors—Multi-sensor Command and Control Aircraft ($MC^2A$)—will replace many of the $C^4ISR$ functions of today's specialized, but independent assets. Air, ground, and space assets will comprise the $MC^2C$, which will elevate Joint Forces Air Component Commanders' ability to command and control air assets. Additionally, every platform will be a sensor on the integrated network. Regardless of mission function ($C^2$, ISR, shooters, tankers, etc), any data collected by a sensor will be passed to all network recipients. This requires networking all air, space, ground, and sea-based ISR systems, command and control ($C^2$) nodes, and strike platforms, to achieve shared battlespace awareness and a synergy to maximize our ability to achieve the JFC's desired effects.

Uniting joint and coalition information presents the most difficult challenge in providing one common operational picture for key decision makers. We are working closely with our sister services to eliminate the seams between existing systems and taking the necessary steps to ensure all future acquisitions are planned and funded to meet the interoperability requirements of future joint CONOPS.

A critical element of successful information merging is communications, as bandwidth is finite and requires careful management. Long-range or penetrating systems must communicate beyond the horizon despite adversaries' attempts to exploit or interrupt these links. To counter disruption, all systems must be reliable, secure, and bandwidth-efficient. The PBA construct facilitates this objective by eliminating constrictive, stove-piped communications systems while emphasizing networked operations.

We will realize the vision of horizontal integration in our TF CONOPS. GSTF, for example, will deliver the right-sized mix of assets with appropriate sensors capable of penetrating into enemy airspace. Such sensors may be low observable and/or expendable, mounted on either ISR platforms or imbedded into strike platforms. Sensors may consist of special operations forces, inserted before the commencement of hostilities, who communicate with attack platforms during combat via secure electronic writing tablets, annotating targets and threats on the imagery display with a stylus. As technology progresses, and where it makes sense, a significant portion of ISR functionality will likely migrate to space, affording 24/7 persistence and penetration. Likewise, advanced defensive counterspace capabilities will afford these systems protection from enemy actions.

Combining manned, unmanned, and space-based assets with dynamic $C^2$ and PBA transforms disparate collection and analysis activities into a coherent process, allowing the warfighter to make timely, confident, and capable combat decisions. This is what the Air Force brings to the joint fight. It is what air and space warriors are all about. We unlock the intellectual potential of airmen who think across the dimensions of mediums and systems capabilities, for the joint warfighter.

*Addressing the Recapitalization Challenges*

Despite new CONOPS and visions for future capabilities, we cannot rely on intellectual flexibility to eradicate the challenge of old systems and technologies. Though creativity may temporarily reduce the negative impacts of aging systems on our operational options, ultimately there are impassable limits created by air and space system hardware issues.

We have made tremendous strides in modernizing and improving maintenance plans for our aircraft; however, the tyranny of age has introduced new problems for old aircraft. Reality dictates that if we completely enhance the avionics and add new engines to 40-year old tankers and bombers, they are still 40-year old aircraft, and subject to fleet-threatening problems such as corrosion and structural failure.

This is equally true for our fighter aircraft, where once cutting-edge F–117s now average over 15-years of age, and mainstay air-dominance F–15Cs are averaging nearly 20-years of service. With double-digit surface-to-air missile systems, next-generation aircraft, and advanced cruise missile threats proliferating, merely maintaining our aging fighter and attack aircraft will be insufficient. In fact, the dramatic advances offered in many of our TF CONOPs cannot be realized without the addition of the unique capabilities incorporated in the F/A–22. Simply stated, our legacy systems cannot ensure air dominance in future engagements—the fundamental element for joint force access and operations. We will thus continue executive oversight of F/A–22 acquisition in order to ensure program success. While keeping our funding promises, we will procure the only system in this decade that puts munitions on targets, and which is unequally capable of detecting and intercepting aircraft and cruise missiles.

Although ultimately solving these recapitalization challenges requires acquisition of new systems, we will continue to find innovative means to keep current systems operationally effective in the near term. We know that just as new problems develop with old systems, so too do new opportunities for employment, such as our employment of B–1s and B–52s in a close air support role during OEF. We will also pursue new options for these long-range strike assets in a standoff attack role for future operations.

Unlike with the aforementioned air-breathing assets, we cannot make service life extensions or other modifications to our orbiting space systems. Satellites must be replaced regularly to account for hardware failures, upgrade their capabilities, and avoid significant coverage gaps. Additionally, we must improve outmoded ground control stations, enhance protective measures, continue to address new space launch avenues, and address bandwidth limitations in order to continue leveraging space capabilities for the joint warfighter. We are exploring alternatives for assuring access to space, and a key aspect of this effort will be invigorating the space industrial base.

Finally, it is imperative that we address the growing deficiencies in our infrastructure. Any improvements we may secure for our air and space systems will be limited without a commensurate address of essential support systems. Deteriorated

roofs, waterlines, electrical networks, and airfields are just some of the infrastructure elements warranting immediate attention. Our ability to generate air and space capabilities preeminently rests with the ingenuity of visionary ideas, yet intellectual versatility must be supported by viable systems and structures to realize our Service potential.

*Organizational Adaptations*

Commensurate with our drive to enhance air and space capabilities is our identification and development of organizational structures to aid these advances. In 2002, we initiated numerous adaptations to more efficiently and effectively exploit Air Force advantages for the joint warfighter.

*Warfighting Integration Deputate*

Comprehensive integration of the Air Force's extensive $C^4ISR$ systems is paramount for our future capabilities. This requires an enterprise approach of total information-cycle activities including people, processes, and technology. To achieve this, we created a new Deputy Chief of Staff for Warfighting Integration (AF/XI), which brings together the operational experience and the technical expertise of diverse elements ($C^4ISR$, systems integration, modeling and simulation, and enterprise architecture specialties.)

This new directorate will close the seams in the $F^2T^2EA$ kill chain by guiding the integration of manned, unmanned, and space $C^4ISR$ systems. AF/XI's leadership, policy, and resource prioritization will capitalize on the technologies, concepts of operations, and organizational changes necessary to achieve horizontal integration and interoperability.

Success has been immediate. AF/XI worked with the Deputy Chief of Staff for Air and Space Operations to champion increased Air Operations Center weapon system funding in the fiscal year 2004 POM, which accelerated the stabilization and standardization of the weapon system. Subsequently, the base-lined weapon system now has a modernization plan, which is both viable and affordable. AF/XI also led analysis that highlighted imbalances among collection and exploitation capabilities. As a result, we plan to accelerate ground processing and exploitation capabilities within the Future Years Defense Program to close the gap. Major contributions in management of the complex information environment will continue, as AF/XI makes better use of scarce resources, allowing the Air Force to provide the joint warfighter the capabilities to dominate the battlespace.

*Chief Information Officer (AF/CIO)*

Partnered with AF/XI, the AF/CIO shares responsibility to spearhead the transformation to an information-driven, network-centric Air Force. These two organizations orchestrate the integration within our information enterprise, and establish processes and standards to accelerate funding and ensure priorities match our integrated information vision.

The AF/CIO's specific mission is to promote the most effective and efficient application, acquisition, and management of information technology resources under an enterprise architecture. The goal is to provide the roadmap for innovation and to function as a blueprint for the overall leverage of valuable information technology. Enterprise architecture will use models and processes to capture the complex interrelationships between the Air Force's systems and platforms. A resultant example is basing Information Technology (IT) investment decisions on sound business cases, approved Air Force standards, and, ultimately, how a particular technology contributes to specific capabilities. Additionally, we are institutionalizing enterprise architecting as a key construct in defining mission information requirements and promoting interoperability.

Currently, the wide variety of IT standards limits $C^2$ processes and information and decision support to our warfighters. The AF/CIO–AF/XI team is tackling this and all other integration challenges as they develop an enterprise architecture that spans the entire Air Force, while also staying in harmony with other services' efforts.

*Blended Wing*

We do nothing in today's Air Force without Guard, Reserve and civilian personnel working alongside Active Duty airmen. A fundamental initiative of Air Force transformation is formalizing this integration under the Future Total Force (FTF). As part of the FTF, we are pursuing innovative organizational constructs and personnel policies to meld the components into a single, more homogenous force. FTF integration will create efficiencies, cut costs, ensure stability, retain invaluable human capital, and, above all, increase our combat capabilities.

A key effort is to "blend," where sensible, units from two or more components into a single wing with a single commander. This level of integration is unprecedented in any of the services, where Active Duty, Guard, and Reserve personnel share the same facilities and equipment, and together, execute the same mission. In essence, blending provides two resource pools within a single wing—one, a highly experienced, semi-permanent Reserve component workforce, offering stability and continuity; the other, a force of primarily Active Duty personnel able to rotate to other locations as needs dictate.

The first blended wing opportunity arose with the consolidation of the B1–B fleet. The move left behind an experienced but underutilized pool of Guard personnel at Robins AFB, GA. Meanwhile, the collocated 93rd Air Control Wing (ACW) (Active Duty E–8 Joint STARS), suffered from high tempo and low retention. Hence, Secretary Roche directed that the two units merge, and on 1 October 2002, the blended wing concept became a reality with the activation of the 116th ACW.

The 116th ACW tackled many pioneering challenges: from legal questions surrounding the command of combined Active-Reserve component units, to programmatic issues with funding the program from two separate accounts, to integrating different personnel systems used by each component. Airmen from both components are working through these issues successfully, making the 116th an example for future FTF blending. Yet, some additional Title 10 and Title 32 provisions still need to be changed to make the FTF a reality. Meanwhile, parallel efforts, such as placing Reserve pilots and maintenance personnel directly into Active Duty flying organizations under the Fighter Associate Program, add to this leveraging of highly experienced Reservists to promote a more stable, experienced workforce.

As organizational constructs, blending and associate programs lay an important foundation for a capabilities-based, expeditionary air and space force, which are inherently flexible and ideal to meet rotational AEF requirements. In a resource-constrained environment, blending promotes efficiencies and synergies by leveraging each component's comparative strengths, freeing funds for modernization while sustaining combat effectiveness, and effecting warfighting capabilities greater than the sum of its parts.

*Combat Wing*

The comprehensive evaluations in our ongoing transformation include examining our wing structure. Given all of the lessons gleaned from expeditionary operations over the past decades, we asked, "Could we derive advantages in revised wing organization for both force development and combat capability?" The answer was "Yes," and we enacted changes to create the Combat Wing Organization (CWO).

The central aspect of the CWO is the new Mission Support Group. This will merge former support and logistics readiness groups, and contracting and aerial port squadrons, as applicable. Within this group, we will hone expeditionary skills from crisis action planning, personnel readiness, and working with the joint system for load planning and deployment, to communications, contingency bed down, and force protection. Currently, all of these aspects exist in skill sets that none of our officers have in total. But the new expeditionary support discipline will address this, and provide our officers the expertise in all aspects of commanding expeditionary operations. With this reorganization, each wing will now have one individual responsible for the full range of deployment and employment tasks—the Mission Support Group Commander.

The restructuring will retain the Operations Group; however, group commanders will become more active in the operational level of war. Squadron commanders will be role models for operators in the wings, ready to lead the first exercise and combat missions. Similarly, we will establish a maintenance group responsible for base-level weapons system maintenance and sortie production rates. Like their operator counterparts, maintenance squadron and group commanders will be role models for all wing maintainers. Meanwhile, medical groups will retain their current organization, although we are working changes to home and deployed medical operations for future implementation.

Flying and fixing our weapons systems, as well as mission support, are essential skill sets. Each requires the highest expertise, proficiency and leadership. The new wing organization allows commanders to fully develop within specific functional areas to plan and execute air and space power as part of expeditionary units, while also giving maintenance and support personnel focused career progression. This reorganization does not fix something that is broken—it makes a great structure exceptional.

*Acquisition and Business Transformation*

To achieve our vision of an agile, flexible, responsive, and capabilities-based air and space force, we must transform the processes that provide combatant commanders with air and space capabilities. An example of this in action is the Air Force's efforts to carry out the responsibilities of DOD Space Milestone Decision Authority (MDA). The Secretary of the Air Force delegated those responsibilities to the Under Secretary of the Air Force, under whose leadership immediate benefit was realized. Adapting an effective process already in use at the National Reconnaissance Office (NRO), the Under Secretary instituted a new streamlined space acquisition program review and milestone decision-making process. This new process was used for the first time in August 2002 in developing a contract for the National Polar-orbiting Operational Environmental Satellite System. This effort creates an opportunity for the Air Force to apply performance and cost accountability to defense industrial firms through their chief financial officers and board of directors by linking executive compensation to contract performance.

In addition to the major process changes for DOD space, the Air Force's Business Transformation Task Force directs and integrates further process improvement and adaptation. Core business and operations support processes—such as acquisition, logistics, maintenance, training, medical and dental, among others—are crucial, as they ultimately determine our overall enterprise effectiveness and directly sustain combat capabilities. An additional category of processes called "enablers" completes the Air Force enterprise. Examples of "enablers" include management of human resources, finances, contracts, property plant and equipment, and information. The enablers are important as they facilitate our core capabilities and determine the overall efficiency of our enterprise.

The Air Force will enact business transformation from an integrated enterprise perspective, examining every process and associated link. Accordingly, we will employ industry best practices and identify management metrics to improve process efficiency without degrading our enterprise effectiveness; expand our customer's self-service management capability and free up needed resources for the operational communities; and provide real-time, accurate financial data for better decision making. Already, acquisition reform has effected notable improvements, including:

—(1) Streamlined our acquisition and contracting regulations, replacing lengthy prescriptive sets of rules with brief documents that emphasize speed, innovation, sensible risk management, and elimination of time-consuming process steps that have little value. As previously mentioned, our new National Security Space acquisition process is an example of progress in this area.

—(2) Created a Program Executive Office for Services to bring new efficiency to the growing area of services contracts. This key area, which accounts for nearly half of our procurement budget, had no prior centralized coordination and oversight.

—(3) Developed and initiated System Metric and Reporting Tool (SMART), putting real-time program status information on everyone's desktop. This web-based application pulls data from dozens of legacy reporting systems to give everyone from program managers up to senior leadership direct visibility into the "health" of hundreds of acquisition and modernization programs. When fully deployed in fiscal year 2003, it will automate the tedious and laborious process of creating Monthly Acquisition Reports and possibly Defense Acquisition Executive Summary reporting to OSD.

—(4) Empowered "High Powered Teams" of requirements and acquisition professionals to create spiral development plans to deliver initial capability to warfighters more quickly, and add capability increments in future spirals.

—(5) Designed a Reformed Supply Support Program to improve the spares acquisition process by integrating the support contractor into the government supply system. Contractors now have the same capability as government inventory control points to manage parts, respond to base level requisitions, track spares levels, and monitor asset movement.

—(6) Continued, with OSD support, expansion of the Reduction in Total Ownership Cost (R–TOC) program, to identify critical cost drivers, fund investments to address them, and generate cost savings and cost avoidance. We also created standard processes and a business case analysis model to use for initiatives within R–TOC. In fiscal year 2003, OSD allocated $24.9 million no-offset investments to R–TOC that will return $53.2 million through fiscal year 2008. A planned $37.1 million investment across the FYDP will save a projected $331 million in operations and maintenance through fiscal year 2009.

These initiatives are only the beginning of a comprehensive and aggressive approach to reforming business practices. Our efforts today will have a direct effect

on efficient and effective air and space capability acquisition, both immediately and in the future.

*Ensuring Readiness*

Integrating systems and expanding business practices will not only have dramatic effects on air and space capabilities, but also reduce readiness challenges. However, we still face daunting, but surmountable, obstacles. We must overcome a multitude of installations and logistical issues to secure flexible and timely execution of expeditionary requirements for joint warfighting.

Reconstituting and reconfiguring our expeditionary basing systems and wartime stocks is a critical element of our force projection planning. While we made significant strides in funding, we require additional investments in bare base systems, vehicles, spares, munitions, and pre-positioning assets. Our infrastructure investment strategy focuses on three simultaneous steps. First, we must dispose of excess facilities. Second, we must fully sustain our facilities and systems so they remain combat effective throughout their expected life. Third, we must establish a steady investment program to restore and modernize our facilities and systems, while advancing our ability to protect our people and resources from the growing threat of terrorism at current, planned, and future operating locations—at home or abroad.

We are making progress. Improved vehicle fleet funding allowed us to replace some aging vehicles with more reliable assets, including alternative fuel versions to help meet federal fuel reduction mandates. Targeted efficiencies in spares management and new fuels mobility support equipment will improve supply readiness. In addition, our spares campaign restructured Readiness Spares Packages and repositioned assets to contingency sites. Moreover, to increase munitions readiness, we expanded our Afloat Prepositioning Fleet capabilities, and continue acquiring a broad mix of effects-based munitions in line with the requirements of all TF CONOPS.

Finally, our "Depot Maintenance Strategy and Master Plan" calls for major transformation in financial and infrastructure capitalization to ensure Air Force hardware is safe and ready to operate across the threat spectrum. To support this plan, we increased funding in fiscal year 2004 for depot facilities and equipment modernization. We also began a significant push to require weapon systems managers to establish their product support and depot maintenance programs early in the acquisition cycle and to plan and program the necessary investment dollars required for capacity and capability. Additionally, we are partnering with private industry to adopt technologies to meet capability requirements. The results from these efforts will be enhanced, more agile warfighter support through the critical enabler of infrastructure.

*Expanding AEF Personnel*

The attacks of 9/11 significantly increased workload and stress in a number of mission areas for our expeditionary forces. Manning for these operations is drawn from our existing AEF packages. In order to accommodate increased contingency requirements we are exploring options to augment the existing AEF construct. Recent and ongoing efforts to maximize the identification of deployable forces and align them with AEF cycle, assisted in meeting immediate critical warfighting requirements. However, some career fields remain seriously stressed by the war on terrorism. Accordingly, our efforts focus on changing processes that drive requirements not tuned to our AEF rhythm. We developed formulas to measure, and gathered quantitative data to evaluate, the relative stress amongst career fields to redirect resources to the most critical areas. We also began a critical review of blue-suit utilization, to ensure uniform airmen are used only where absolutely necessary, and maximize the use of the civilian and contract workforce for best service contribution and military essentiality.

We are refocusing uniformed manpower allocation on our distinctive capabilities to reduce the stress on our active force. Additionally, we are carefully considering technologies to relieve the increased workload. These efforts exist within our longer-term work to reengineer, transform, and streamline Air Force operations and organizations, and have allowed us already to realign some new recruits into our most stressed career fields.

*Summary*

As the two mediums with the most undeveloped potential, air and space represent the largest growth areas for national security and the greatest frontiers for joint warfighting. As such, air and space operations will play an ever-increasing role in the security of America and her allies. The Air Force will exploit technology, innovative concepts of operations, organizational change, and our ability to embrace creative ideas and new ways of thinking. We will bring to bear the full suite of air and space capabilities for tomorrow's joint force commander—drawing from every

resource, integrating closely with all services, and overcoming any obstacle to succeed.

NEXT HORIZON

The events of the last year have emphasized the dynamics of a new international security era. The decade of new states following the Cold War has been followed by the rise of non-state actors, many following a path of aggression and destruction. Yet, just as America adapted to new global dynamics in the past, we will again confront emerging challenges with confidence and faith in our ability to meet the demands of assuring freedom.

The Air Force remains dedicated to drawing on its innovation, ingenuity, and resolve to develop far-reaching capabilities. The ability to deliver effects across the spectrum of national security requirements is the cornerstone of the vision and strategy of Air Force planning and programming. In conjunction, and increasingly in integration with ground, naval, marine, and other national agency systems, the Air Force will play a central role in elevating joint operations. We recognize the greatest potential for dominant American military capabilities lies in the integration of our air and space systems with those of other services and agencies, and our success in this objective will be evident in every mission to deter, dissuade, or decisively defeat any adversary.

Senator STEVENS. Thank you very much. General, you are right about our generation. Most of our members were drafted for that war, and this force is all volunteer, and it is a different generation, and we do stand in awe. I see those young men and women walking across that desert carrying those packs, which includes all that protection gear for chemical and biological warfare, and to see what they're doing, we have to marvel at them. You have done an excellent job in training them and they are demonstrating that training now, and I just can't tell you how proud we are of them.

I am a little worried about what you said, though, Mr. Secretary, about the age of the equipment that our young people are flying. I don't know many people other than a few cracks, that are going to work in a 50-year old car.

Senator BURNS. Me.

Senator STEVENS. I already said cracks.

But when we look at this, really the genius of the Air Force is not those who are pilots, with due respect. It's the mechanics. These people are doing an enormous job. I'm just amazed that we don't have 50 percent of our planes red-lined and not capable of flying. You're saying they were flying in the eighties and in wartime, that's simply an amazing record and I think somehow you ought to get a really outstanding kind of award for those people maintaining those airplanes and keeping them flying.

767 TANKER LEASE

I am compelled to ask, Mr. Secretary, about the decision on the tankers, because as you know, those tankers now are averaging 44 years of age. Some of them were opposed by Harry Truman, they actually go back to those days, the fifties and late forties. To have an average of 44 you have to have a few out there of that age. Now what about the tanker decision in terms of leasing the tankers?

Secretary ROCHE. Well, the Secretary of Defense has really gotten himself involved in this, and it's a different approach, as you know. The Air Force believed it had a good proposal, it did require a lease buildup that had a high peak and then came back down again. The things that he has sort of fed back to us is the sense that yes, there is a real need for tankers. The notion that planes

can fly forever, I think we've dispelled. And by the way, we recognize that it was the Air Force that sent a study over a few years ago that said replacements would be required by 2030. That was a paper study done by analysts who unfortunately never lived with real objects like ships and airplanes, and understood corrosion and understood delaminating aluminum. So we're overcoming some of our own bad promotion.

He fully agrees with that. He also recognizes that re-engining very old airplanes doesn't solve the problem and it's not the engines that are the problems, it is the corrosive effects to the main aircraft. And he has asked his staff to work with us to see if there is a way that we can satisfy the needs to begin tanker replacement early and at the same time not have such a big bump in the budget, and we are working with his staff.

It is now a very congenial working relationship. It is no longer—it never was really adversarial, it was more gee, this is so odd, so different, this lease notion, but now we're taking a look at leases, combinations of things, we're working very much together, and I would hope we can have something back to him so that he can make a final decision within the next couple of weeks. But, the war is taking up a lot of his time, unfortunately.

Senator STEVENS. Well, it is a difficult issue to address during a war, but very clearly, we're going to get to the point where we have some capability of rotating some of those older assets out of this tanker fleet, we're going to have to get new ones in there, and I am disturbed about that.

C–17 AIRCRAFT

What about the C–17s? Are those the workhorse today of the Air Force? Last year we thought we authorized 15 new aircraft and there are only 11 in this budget.

Secretary ROCHE. Sir, last year when we heard you authorized and directed us to put in money for 15 for this year, we were doing so, it was causing a budget difficulty that we discussed with the Office of the Secretary. We noticed that because of what you did last year, you put a lot of money up front, and that allowed for the fact that 15 airplanes had come off the production line every year very smoothly, to the position that if we were to buy the 15 this year, four of them would go into backlog. In other words, they wouldn't be built in 2004, they would really be built in 2005. And so we——

Senator STEVENS. Why? I don't understand that.

Secretary ROCHE. Because 15 come out each year and because of prior funding, there are 15 about to come out. There are four already in backlog. If we would do 15 more, we only increase backlog. By ordering 11, they all get built in 2004 and then we continue because of the fact that there is an existing line. But we ask that this only be considered, this proposal. We recognize that we did not do exactly what we were directed to do.

The reason that you had the concerns last year was we were busting limits on advance procurement in a number of years. Because of the cash infusion that was made by the committee last year, you have set up a situation where we can in fact save the taxpayer a good bit of money by having this very smooth and still pro-

ducing 15 a year, but not spending money a year earlier than necessary.

Senator STEVENS. How many total are you going to acquire under this new approach?

Secretary ROCHE. It would be the same number of airplanes as before, sir. It would be 60 in this multiyear plus the others, for a total of 180.

Senator STEVENS. You're not reducing the number at all?

Secretary ROCHE. No, sir.

Senator STEVENS. The final number remains the same?

Secretary ROCHE. Yes, sir.

Senator STEVENS. Senator Inouye.

## AIR FORCE ACADEMY INVESTIGATION

Senator INOUYE. Thank you very much. General Jumper, I would like to begin with your last item, the Academy. We have been told that the Air Force has rejected an outside review panel to look over the situation and make their own assessment. Some of my colleagues have been inquiring, why reject this proposal. Can you tell us why?

General JUMPER. Sir, first and foremost, we believe that this is the Air Force's problem to fix. We do have the Department of Defense Inspector General (DOD IG) in with us on this investigation and they are doing a portion of the investigation to look into the cases that have arisen, to help us with that part of it. The Secretary and I have been out there personally, we have had our team out there three times. We have gotten to the point now where the data that we're getting is repetitive data, and we think we have a good understanding of what the problems and issues are. We're being transparent on this, we're sharing what we have with the committee.

But this I believe, sir, is the responsibility of the Secretary and myself to go fix this and we intend to do that. And we are sharing our data, but this is our responsibility. We're the ones that are accountable, sir, and for our own sake and the sake of our Air Force, we want to press on to this solution.

Secretary ROCHE. May I comment, sir?

Senator INOUYE. Please.

Secretary ROCHE. The interesting thing about the Academy, Senator, is it's not a university. We have 4,200 cadets, typically between the age of 18 to 23, and we don't have graduate students, married graduate students, and it is not a university. The only thing that is like it is West Point, the Naval Academy, the Coast Guard Academy, and possibly the Maritime Academy.

When you have a gender distribution of 84 percent men and 16 percent women, it is very different than at an American university which is now over 50 percent women and under 50 percent men.

It's in a military culture. We're taking young people from around the United States and putting them together. The thing that we looked at when we went at this is, if we were to have a safety problem or something else, we would want to learn about the problem and deal with it ourselves rather than sending it to some outsiders who may not understand the culture as well.

The second thing we have going for us is we now have a cadre of women officers, spectacular officers, and the first graduates from 1980 are now Colonels or just about becoming Colonels. We have maintainers who are Major Generals, we have a number of women officers in place, and we felt that the experts on military life, the Academy life, problems of sexual assault, et cetera, we had the best experts in the world to deal with that, women who had attended our Air Force Academy, who understood it, who understood our Air Force, who could help us. And they have been wonderful in helping us.

RESERVES

Senator INOUYE. Thank you very much. Mr. Secretary, according to the latest reports, 36,200 reservists are now deployed throughout the world, including a high portion of critical specialists. The law presently limits service to 24 months, and there is some indication that we might be facing shortages. Do you have any plans to request extending the 24 months?

Secretary ROCHE. At this stage, Senator, what we have done is when those were mobilized, we put a program in to demobilize as rapidly as we could, taking into account the plans of the individual reservists. You have to give them some certainty. If they go to their employer and say they're going to be gone for 6 months, sometimes it just causes a problem if you send them back in 3 months. So we try to work with them, we try to make the transition in, smooth, and transition out, smooth.

We had gotten that number down to under 14,000. Of that, 9,000 were in force protection, protecting bases, a number of bases here, plus all the new bases we have created overseas. We recognize that we have until July 2003 to address that problem and that's why you've seen us effectively hire 8,000 Army guardsmen to protect our bases. I believe if you go to Bolling Air Force Base now, you will find it's our Army colleagues protecting the base, and this was something that was worked out between General Jumper and General Shinseki, and it's a wonderful thing to do. That takes some of the pressure off that 9,000.

It's our hope this war will be over soon enough that we can once again keep our word to these men and women and get them back to their civilian jobs as soon as we can, so at this stage we don't see a request for extension. We would rather be motivated to find ways to get them back to their normal life. We are concerned, that if we overwork the Guard and Reserve, their ability to recruit will be very, very difficult.

We are now operating with something like 1,800 volunteers, which is wonderful. These are men and women who see a chunk of time, they can give it to us, and they have been doing so.

PERSONNEL TRANSFORMATION

General JUMPER. Sir, if I might add, as part of Secretary Rumsfeld's personnel transformation, he has asked us to go out and find ways to make sure that people who are wearing the uniform are doing jobs that require people to be in uniform. This is another part of Secretary Roche's efforts, and in that effort we have gone out and found about 12,000 people in our Air Force who we think

their job could be done in another way. We won't get all of those back, but I think we will get a goodly portion of those back. Also, technology can help us out with things like guarding bases. Those are the things we're looking at right now to see if we can make sure that the demand for people in uniform is done correctly.

Senator INOUYE. Mr. Secretary, we have been advised that as a result of the long period of deployment, some of your reservists are experiencing financial problems. Is the Department planning to do something about this?

GUARD AND RESERVE FINANCIAL PROBLEMS

Secretary ROCHE. Not that I'm aware, Senator. In some cases that I have been able to get into personally, I've known employers and I've been able to call employers, but I don't know enough. We have a program borrowing from World War II where you recall, sir, that in World War II, the services honored employers who helped their employees get to war. We now have gone to our reserves and guardsmen—and by the way, we're not allowed to keep a list of their employers for some privacy reason—but we've asked them if they would give us the names of their employers, and to each of them we have sent a thank you letter and a special pin with the E.

We will shortly do the same thing for parents, for parents being able to walk around and letting us know that their son or daughter is serving.

With respect to financial conditions, both the Guard and Reserve try to take into account those members who have that problem, and it is a way to relieve them of volunteers, or if there's some other way to get them back to the jobs as soon as they can, they do. Right now, it's a very stressing thing and I don't know of any particular program that the Department is looking at to worry about the financial conditions when these men and women come on active duty and leave their jobs.

General JUMPER. Senator, if I might add, as you well know, there are a great number of employers out there that take the burden themselves to make up the difference between the salary that the member gets when he or she comes on active duty and the salary they had before. These are great Americans out there who are helping carry this burden. Not all of them can afford to do that, and it is a concern, sir.

IRAQI AIRCRAFT

Senator INOUYE. Like most Americans, I have been following the events as they unfold in Iraq, and I have been very impressed by the efficiency and the accuracy of your personnel. It appears that possibly as a result of that, there are no Iraqi aircraft flying around. Does it mean that the Iraqis have no aircraft left?

General JUMPER. Sir, the Iraqis do have more than 100 very capable aircraft left. I mean, one could conclude by looking at the actions over there that they actually threw up their hands and gave up as the first order of business. I have been surprised at the lack of coordination that I have seen in their response both with their surface to air missiles and their airplanes. They do have capable airplanes.

And as you know, Senator, as the Secretary mentioned, starting back in June or so, we started working away with a more aggressive enforcement of United Nations Security Council resolutions. In responding to violations that put command and control communications lines, surface-to-air missiles in the wrong areas, we were prompt about taking those out, and we think that possibly has had an effect on their ability to organize a responsive defense.

I would hasten to add that you still don't know what you don't know. Although this is unexplained, they still have capability down there, and we have to certainly respect that, sir.

Senator INOUYE. May I ask one more? Mr. Secretary, you mentioned the GPS jammers. Are they the ones that the Russians provided the Iraqis?

Secretary ROCHE. May I answer that off line to you, sir? I don't know if I can answer that in open session. But I would like to reemphasize that we find it wonderfully ironic that we use GPS bombs against GPS jammers, and the bombs worked just fine, Senator.

Senator INOUYE. There must be something wrong.

Secretary ROCHE. Or something good about what you appropriated 4 years ago, sir.

Senator INOUYE. Thank you, Mr. Chairman.

Senator STEVENS. We do follow the early bird rule. Senator Durbin.

## AIR FORCE ACADEMY

Senator DURBIN. Thank you very much, Mr. Chairman. I would like to return to this issue about the Air Force Academy for a moment. I've followed it and I've spoken to my colleague Senator Allard, who I think has really been a leader on this issue, and he first had one of the young women come forward. He has dealt with this responsibly and I think really drawn our attention to it as a national issue.

It is a different issue from this side of the table than most, because for 20 years I have been sending young men and women from my congressional district in my State to the academies. They were anxious to be appointed, they wanted to go there, and I wanted to send them. And I really looked hard to find young women who would be part of our modern military, because I think that's an important element. And now we have this scandalous report which may result in some dramatic changes at the Academy.

Mr. Secretary, I would say to you that I wish you would step back a moment from your earlier comment and think about what you told us. When Senator Inouye asked you about an outside review you said that these outsiders would not understand our culture. That is a troubling statement, because it is the culture of the last 10 years which has allowed this scandal to grow rather than to disappear, and that culture needs to be changed, clearly.

When we are talking about bringing in the experts, I think you made a good point. We could bring in women who have served in the military, presently serve in the military, who could give excellent insight into how this culture could be changed. But I hope that you will concede to me that change is necessary in the culture and understand that the acceptance of it is just not acceptable.

Secretary ROCHE. Senator, thank you very much for your question, because I clearly did not communicate. The culture at the Academy absolutely must change, and I could go on for a great length of time agreeing with you on point after point after point.

I meant the culture of the United States Air Force. A young woman on one of our regular Air Force bases, an airman first class, is far better protected, far better dealt with when a problem emerges, the chain of command goes into action very quickly. That doesn't mean we don't have a problem now and then; it is, we are very confident when the chain of command is held responsible and accountable to all parties, and that we have crisis response teams, and we have first sergeants and senior enlisted. She is a lot better off than is a female today at the Air Force Academy.

Our Air Force culture is very good. The Academy culture must change. And the reason the two of us have taken this personally is that we recognize that this is a culture issue. You can't just fire a couple of generals and think the problem is solved because you would have missed the issue.

It goes back to, what struck us most in the cases we have over a 10-year period, there are cases there, some we prosecuted, some with insufficient evidence, there are three of the 23 rape allegations made over the last 10 years where the young women recanted and said it never happened. That's bad. But when we start having officers we know come up to us and say General, there is something you need to know, when I was at the Academy, this is what happened to me, that really hurts us, because it means that women have been victims in the United States Air Force.

We want any assailant out of our Air Force. If there is someone out there attacking our young airmen, we want him out, and we want them out, and we want to help these young women help us cull these people out. The culture, you will see this when we release our initial set of directions, and we will still hold these individuals accountable, but we are going right at the culture. But we recognize that you don't change a culture with one member, it means starting from the top, which means it starts with us. It means we go back out there over and over and over.

We both have been involved, we changed the honor system last year, we changed the recruiting athletics system, we changed the curriculum. This area we thought was handled, but it clearly was not, and it goes over a long period of time. In 1993, this all occurred and we thought we had solved it, but those actions had secondary effects that made some of it worse, so we absolutely have to address it now as a cultural problem.

It has to be addressed now, because in less than 90 days, Senator, including some people you have nominated, they will have a new class beginning, including 189 women, there will be a total of 714 women at the Academy in the fall. We have to make the first steps so that the families of these young women coming in June can believe that their daughters are okay and also the families of the cadets will believe that due process is going to be applied.

Now having done the initial set of moves, we have the experts—for instance, the Federal task force on domestic violence, which looks at domestic violence against another in a family setting, which very much replicates it. We're going to change it, but we are

going to make changes immediately and then start turning somewhere, as compared to if I need 10—which experts, this set of experts, that set, wait for 6 months, and meanwhile have another class coming to the Academy.

Senator DURBIN. This is a very serious issue and I'm glad for your response, because I think it helped to explain what you said earlier.

I hope that in the course of this, both you and the General, in your commitment to transparency, will bring in those credible parties who will help to restore the integrity and the reputation of a great institution, the U.S. Air Force Academy, and I hope that you will do that.

MEDICAL EVACUATION MISSION

I have one other issue that I will raise if I have a minute here, Mr. Chairman, I see I have a very brief period of time, and that was our discovery that in the budget request, there is a proposal to discontinue the so-called Nightingale Mission, the aeromedical evacuation mission, and to privatize it, to contract it out, and to suggest that we would use available space on C–130s and C–17s to move people who are injured or ill, where at the present time we are using C–9s dedicated to that purpose.

Despite my interest in it because of Scott Air Force Base and obvious reasons, it does raise a serious question to me as to whether or not we can privatize and contract out something so critically important as the movement of personnel who are ill or very sick or injured or in some way have been victimized by combat. And I wonder if we could have your response to that, and if we could expand the conversation to talk about some options that might be considered.

Secretary ROCHE. Sir, let me let General Jumper start, and this is frankly the question we hoped you would ask us.

General JUMPER. Sir, I know of no effort out there to privatize the medical evacuation. I think the effort, first of all, starts with the C–9s and the age of the C–9s and the significant costs to either bring them up to current Federal Aviation Administration (FAA) standards—they don't meet any of those standards, or to replace them.

When we have out there active in the circuit every day our whole fleet of strategic airlift capability, our C–17s, our C–5s and our C–130s, that are moving around at present more than 100 countries every day, that provide the opportune lift to get patients from one place to another. That's the thing we hope to be able to take advantage of. As a matter of fact, we did not use the C–9 in any of the evacuations during Operation Allied Force in Kosovo, nor in Afghanistan, because of the limitations of that kind of an airplane.

So, we have been successful in taking advantage of our air fleet. I will make sure that what I said to you about contracting out is correct, because that's the first I've heard of such a thing, but I have been surprised before.

Senator DURBIN. If I could mention one other thing, Mr. Secretary. I'll end here because my time is up. And that is, while I had an opportunity to go with the congressional delegation to Afghanistan and flew in a C–130, great crew, terrific performance, pretty

old plane, but to put litters in the back of that plane for people who are sick, I don't think is an adequate response and I don't think it mirrors the quality of care we would ask from the Air Force and many others.

Secretary ROCHE. If I may, Senator, we may every now and then inside the United States use an air ambulance service for a one-time situation, so that may be the contract, but generally we are not. The C–130Js are much newer. The preferred plane is the C–17, which we can in fact, and we have these modular systems for the medical pallets. We've both talked to the Surgeon General's people who we're dealing on the aircraft, and with the Air Mobility Command (AMC) commander and United States Transportation Command (USTRANSCOM) at Scott Air Force Base. C–9s are old, these other planes are far more viable in getting around, and it is the judgment of the Air Mobility Command that we can do this with the other aircraft.

The one area that we are working on together is in the Pacific, the bases are so far apart for our own active duty and dependents, getting them to specialized hospitals, let's say Kadena or someplace else, that may require us having to convene with some other aircraft.

Senator DURBIN. Thank you, Mr. Chairman.

Senator STEVENS. Senator Domenici.

Senator DOMENICI. Thank you very much, Mr. Chairman. General, it's good to see you, and Mr. Secretary, it's great to see you again.

Obviously this is a day when we have talked about parochial issues and important issues in our home State, and we wonder whether it's even the right forum because our troops are at war overseas, it seems almost insignificant that we talk about local issues such as Holloman or Cannon or Kirtland.

I want to join in complimenting both of you as the leaders of our Air Force. The performance of our troops in Iraq is so spectacular, it is difficult to comprehend. I never thought we'd see our forces have such an advantage. I've been here 30 years and I get to follow development and evolution of our Military Forces, but I frankly never believed that we could move so exponentially in 10 years with reference to quality and technology. It's obvious that you're doing it right and we are proud to be part of it, at least in paying attention and doing what you ask us to do.

## PROMOTIONS

And Mr. Secretary, I'm extremely pleased that we have somebody as competent as you there. I have only one observation about the makeup of the hierarchy of the Air Force. I'm a real sucker for big science, I love big science, and we have a lot of it in New Mexico. We have the directed energy activities at Kirkland Air Force Base and it's the headquarters for laser research, and I went out there recently for a visit, and you know what I would like to see? I would like to see a couple or more two-star or three-star generals that are not just pilots but are Ph.D.s in chemistry, physics and engineering.

Secretary ROCHE. Oh, I agree with you.

Senator DOMENICI. I believe you ought to do that.

Secretary ROCHE. As a Ph.D. myself, I think it's a great idea.

Senator DOMENICI. I think you ought to just promote the brightest Air Force people and send them to Massachusetts Institute of Technology (MIT), give them whatever they need to get a Ph.D., and then let them come. What confidence we'd have if they were walking around the laser facility instead of a colonel. He's great, but he has to relate to an engineering Ph.D. from a school, and the few times I have seen a one-star general, I've thought how magnificent that is. I urge that you start a program to encourage them, give them extra incentives, get 8 or 10 of them graduated from California Institute of Technology, get the best and get them out to our Air Force lab, that's what we ought to do.

AIR FORCE INSTITUTE OF TECHNOLOGY

Secretary ROCHE. Thank you for your support, Senator. We have reinvigorated our Air Force Institute of Technology (AFIT). We have ended the notion that you had to go get a paper master's program in order to be promoted. We have a program now that will send every one of our officers either to a graduate school or to a similar experience. We are trying to take our scientists and engineers, with your help, we're giving them bonuses. We're trying to make their careers more exciting.

We have had a whole rerecruiting campaign of these young people, because when you go to one of our labs, the Air Force Research Laboratory (AFRL), or go to the laser facility at Kirtland, as we've both done and did together, you see some of these young officers who have all of the brights in the world, they love what they're doing, they love the fact that their work is going to be meaningful to somebody in combat, and somehow we lose them, and we can't lose them.

And I'm proud to say that even though my partner is a fighter pilot, he was the first to say well, for heaven's sake, why don't we get them their doctorates and keep them.

Senator DOMENICI. Mr. Secretary, you wouldn't lose those scientists, those military guys if they had two stars on them and they were scientists. You're losing them because they are only colonels and they don't want to stay there very long, and they're masters, they're not Ph.D.s. If you get them up there, they will stay there, and if you have them in that hierarchy, they will be glad to stay.

Secretary ROCHE. We need more.

Senator DOMENICI. I want to ask about the Predator.

Senator STEVENS. Would the Senator yield for a second?

Senator DOMENICI. Yes.

Senator STEVENS. Why don't we pay them the equivalent of being generals instead of paying them as colonels? Why don't you jump their rates of pay as opposed to their grade in service?

Secretary ROCHE. It's not a bad idea. We're talking about bonuses in the system for the younger ones. We take science and engineering seriously. Can we take that to study, sir?

There is also a point, though, in making them leaders and showing the young officers that there are role models ahead. We have a couple. We could do more because we are so highly dependent on technology for our service.

Senator DOMENICI. If you did that, you would have the pilots wondering why they are being discriminated against, so you don't want to do that. In any event, it seems to me that this is an idea whose time has come.

PREDATOR

In any event, let me talk about the Predator. First of all, when do you expect the selection process to be completed, and can you give us an update on the environmental assessment that's being performed and for bases recommended for the Predator squadrons, either of you?

General JUMPER. Sir, there is an ongoing environmental assessment right now for where we might go with the Predator. Our plan right now as we're continuing to build Predator at a rate of about two per month, to maintain Indian Springs as our center of excellence for the Predator Unmanned Aerial Vehicle (UAV). When we start building the numbers up, we will make decisions for the future about where and how to expand out the criteria.

As you well know, it has to do with being adjacent to uncontrolled airspace, the weather has to be decent, the winds have to be within a certain limit, et cetera, et cetera. So those things are ongoing, sir, but we don't have a timetable.

Secretary ROCHE. They're also basing more of them overseas than they are at home right now, sir.

Senator DOMENICI. Yes, I understand, but sooner or later we will have them based at home. And if we need weather plus all the rest, it looks like Holloman has an exciting future in terms of that.

MELROSE BOMBING RANGE

Let's talk about the Melrose Bombing Range over on the east side of New Mexico and its supersonic testing capacity. Supersonic land facilities are very, very important. They're doing all that testing now over water. What's the status of the study with reference to Melrose and the possibility for it having supersonic capacity?

Secretary ROCHE. Sir, I have just come upon this and I'm not up to speed on it. May I get back to you on that?

Senator DOMENICI. Absolutely.

[The information follows:]

MELROSE BOMBING RANGE

Sir, my staff has worked this issue with Air Combat Command and has completed a draft of a study to determine the requirements to extend supersonic capability at Melrose Range. The study is now in the process of review to ensure accuracy; we will provide a copy within the next 30 days.

Secretary ROCHE. And by the way, the issue you raised, however, is a critical one. Oftentimes we think we will have a range but then because of restrictions we can't go supersonic. As we move to an era of super cruise, it becomes terribly important to us to be able to do it over places other than water.

Senator DOMENICI. Well, Melrose is over there by Cannon, but it has served the purpose of Holloman, Cannon, and some from Texas. It's a very big range. We acquired it so as to create diversity about 15 years ago, and I think it would be looked at for supersonic land testing, which people are more than willing to take a look and

listen, but we have to do it right so we don't surprise them if in fact it's chosen.

CV–22

Now what about the CV–22, what's the current status of the testing and what is the latest schedule for training squadrons at Kirtland, if either of you know?

Secretary ROCHE. The CV–22, sir, is in a position where it's having to prove itself, and the Navy and Marine Corps in fact have the lead. We have our own special op reader Air Force personnel associated with it. It's a testing program now that has been backed into test, it is encouraging them, but it still has a way to go. We believe that if it tests out well, we would like to have it in our Air Force Special Operating Command (AFSOC). Whether or not we would use it for combat search and rescue is still to be determined, because it has some issues about how it flies close to the ground and may not make it worthwhile. We put on hold what we would do to get them until we find whether or not this program is something that we in fact will buy, and is one where we and the Marine Corps and the Navy would be making a decision and making a recommendation to the Secretary on it after the test program is over. But as you know, it has had a very rough test program.

Senator DOMENICI. General, did you have anything to add to that?

General JUMPER. No, sir, I can't add to that.

Senator DOMENICI. Thank both of you very much. Thank you, Mr. Chairman.

Senator STEVENS. Thank you. Senator Shelby.

Senator SHELBY. Thank you, Mr. Chairman.

PREDATOR HELLFIRE SYSTEM

General Jumper, could you talk a little bit, maybe not everything, about the significance of the joint coordination that took place between the Air Force and the Army to engineer and integrate the Predator Hellfire system?

General JUMPER. Yes, sir. We——

Senator SHELBY. I think that's a great accomplishment.

General JUMPER. It's a great story. The Predator story is a long and tortured one. It came to us in 1996 as a technology demonstration, and we took it over years and developed it into what it is, to include the first step of putting a laser designator on it so it actually designates targets on the ground, and then shortly thereafter by putting the Hellfire missile on it.

Of course we had to go to the Army to work the integration of the Hellfire missile and we had superb cooperation.

Senator SHELBY. They worked that out at Redstone, didn't they?

General JUMPER. Absolutely, out at Redstone. And with the scientists at Redstone actually to do the warhead enhancements that we have done actually just over the last year or so. And the scientists actually at Redstone were the ones that helped us with that development. We are continuing to work with them for even future versions of the Hellfire that will overcome some of the limitations of shooting it from higher altitude, and that work continues, sir.

Senator SHELBY. What you're basically doing is utilizing an organic laboratory.

General JUMPER. Absolutely.

Senator SHELBY. Mr. Secretary?

Secretary ROCHE. I was going to say, we were both just tickled pink. Our boss has told us, sometimes I see Hellfires going into buildings and people coming out, and you know, Don Rumsfeld says, why are they coming out? And we turned to Huntsville and asked for some help, and the speed with which they built the sleeve was just incredible.

AIR UNIVERSITY

Senator SHELBY. Thank you. I want to switch over to the Air University, General, or to both of you. Both of you know that the Air University at Maxwell has seen a dramatic increase in their training responsibilities, particularly for Reserve Officer Training Corps (ROTC) scholarship recipients. I brought this issue up with you before last year and I want to get your thoughts again this year on how Maxwell is doing in meeting their training challenges and do they have the funds to continue this? I think it's very important to the Air Force.

General JUMPER. Sir, let me just say, and you know this very well, over the last few years at the Air University, we have added the doctrine center, we've added the air and space basic course, and we've increased the student flow through there, and in every school that's housed there, in addition to our law school, our chaplains, et cetera, et cetera, they all go through Maxwell Air Force Base and all of its magnificent history going back to the tactical school in the thirties.

We believe that everything there is adequately funded. As a matter of fact, as we continue to find new ways to phase students into the Air University that are in line with our rotation cycles overseas, we have made accommodations for our entire Expeditionary Aerospace Force concept so that throughout the year we can phase students in there in modules, if you will. That work is ongoing there, and that will increase the student flow. We have looked at a whole new way to do the correspondence courses that we have. Again, technology and other things invested into the Air University. These things are ongoing, sir, and it's really tremendous out there.

Senator SHELBY. Thank you. Thank you, Mr. Chairman.

Senator STEVENS. Senator Cochran.

Senator COCHRAN. Mr. Chairman, thank you. We appreciate very much the leadership and outstanding service that our witnesses are providing to our country, particularly the leadership of the Air Force in this challenging time.

C–17 AIRCRAFT

When General Myers was here the other day, the Chairman of the Joint Chiefs of Staff, he talked about and commented on the unanticipated wear and tear on the C–17s and the aging of the C–5 fleet as a result of the high operating tempo during this war against terror. Do you believe the planned procurement of C–17s

and upgrades to the C–5s are sufficient to meet our future airlift needs?

Secretary ROCHE. Senator, I will start and then ask General Jumper to comment. The C–17 is one of those airplanes that you dream for. We accepted it one day and in 48 hours it's in the air and working. It has just been a workhorse, it has been terrific, and I have had the pleasure of flying on them. It has just proven what people said could be done was done, even though the program, as the chairman knows well, went from 220, cut to 110, cut to 40, almost zero, almost zero, almost zero, limped to 40, 80, boom, now 120 going to 180.

C–5 AIRCRAFT

We are going to take the C–5, the C–5Bs and modernize those. The question that we face is to what degree can we take the C–5As and fully extend their life usefully, as compared to just creating another maintenance stream for a long period of time that becomes too costly. We will take and diagnose two of the Bs, then take a look at an A or two, we are creating an air-worthiness board which parallels what the Navy does in its board of inspection survey, because we now have so many old airplanes we need to put together teams of real experts on materials, structures, to be able to advise us, to say this aircraft by hull number has to be retired.

If we cannot get a good answer by modernizing some of the C–5As, recognizing we do all 50 of the Bs, then we will have to determine how many more C–17s are required to make up the shortfall in the lift requirements that we have. That is our current plan. Meanwhile, the C–17s are on multiyear, going along fine. We will review those other studies, and we should be able to find out and understand what it requires to modernize the As and how many of them we could modernize, and then do all the Bs, and then make a decision between doing the As or more C–17s.

General JUMPER. Sir, if I might add, the objective out there from the mobility requirement study is 54.5 ton miles per day. It will be worth our while, especially following this conflict, to go back and take a look and see if that number remains adequate, because that number was established with a completely different set of assumptions. But in order to get to the 54.5 in the course that the Secretary described is the course that we are on right now.

Secretary ROCHE. We wish we just had a problem of building, Senator, it would be easier. We have aging across the board and trying to have budget fit these different categories after, frankly, 10, or 8 to 12 years of not investing. We don't have a capital budget and we don't have a process to reinvest a depreciation rate. So we face you with these big bumps of modernization, which is a shame.

GLOBAL HAWK

Senator COCHRAN. Another point that I recall the chairman making when he was here before the committee was the importance of the capability of these unmanned aircraft to surveil and identify activity through intelligence gathering. The usefulness obviously is very important in a war like we are conducting in Iraq right now. My impression is that Global Hawk has proven to be very valuable to our operations.

My question is, are we moving fast enough to procure systems such as Global Hawk and other necessary unmanned aerial vehicle variants that we see developing? I know Northrop Grumman is developing a Fire Scout as another option. What is your impression of these new systems and are we integrating them into the Air Force quickly enough?

Secretary ROCHE. First of all, Senator, I think the Air Force integration is one where people keep wondering why fighter pilots are doing this, and we're past that. We are absolutely past that. When we have the chief fighter pilot of the Air Force as one of the greatest fans of unmanned vehicles, it's amazing that his leadership has made everyone recognize that there is a complementary nature of manned and unmanned aircraft.

General Franks really did us an enormous favor when we both asked him if we could put some drones over Afghanistan that were not fully developed, not ready for prime time, in order to learn how these operated in war. We probably have saved the American taxpayer an enormous amount of money by having the chance to build something, play with it, use it, understand it, change it, go back.

We're getting the same permission from General Franks here in the Iraqi war. That's allowed us to do things very quickly like the armed Predator, like the sleeve on the Hellfire, like looking at Global Hawk for multiple types of missions, including taking some of the bandwidth off of the satellites and having Global Hawks behave as lower altitude satellites. It's led us to take the multi-sensor command and control aircraft and to think about part of the back end controlling some drones.

And then taking a leaf from history, in the late thirties at Maxwell Air Force Base and the Wright Patterson Air Force Base, the Army Air Corps procured small numbers of a number of different types of aircraft and allowed the young pilots to say here's how these are best used, here's how things go. We've been trying to replicate that. And in open session I can't tell you how many families, I can tell you it's more than you can count on one hand, the families of unattended vehicles plus remotely piloted aircraft, we have found in certain circumstances having a pilot who has to make an attack decision is very important, and also just how the pilot's instincts take over.

You know, a pilot can see a black cloud and won't go into it. A drone will go exactly where you told it to go and then you may find you have a problem because you're in a black cloud. Or when an Iraqi Flogger is coming in at our Predators, our pilots use certain techniques to do that—alter what the Flogger could see. We, by playing and understanding these and getting our young people involved, it has made a huge difference.

UNMANNED AERIAL VEHICLE PILOTS

Now we had a cultural problem when a number of our young pilots thought that somehow they had failed us and that's why they were being assigned to unmanned vehicles. We have both visited every operating unit, we've both spent time at Indian Springs. We've now found every one of their problems like gate time, they didn't get gate time, or they weren't eligible for medals because quite often they were not in the region, although some of them

have killed more people than a heck of a lot of our other pilots. They can get medals now. They worried about where they would go on their next set of orders. We make it clear to them that they are pioneers and we just milk their brains, as well as the maintainers on these aircraft.

PREDATOR B

And from that we have developed the notion of a basic Predator closer to a razor blade as cheap as possible, and it's a killer scout. Predator B is going to be a hunter killer, fly higher, carry more. Global Hawk is equivalent to a low altitude satellite, it can do all kinds of things. And so we believe that our procurement program is much greater than it was a few years ago. And then there are others that I can't discuss in open. This will form a set of families that will let us replicate what happened prior to World War II where the United States was able to pick the best precisely because it experimented as well. General?

General JUMPER. Sir, if I could just add a few points. One is that we have to make sure that we understand the true value of these remotely piloted and unattended vehicles to the fight, and the main virtue that we see is this notion of persistence. We had a Predator here just a few days ago that flew a 33-hour mission. It's this persistence that enables you to stare and to predict, and to do it day and night that makes this small airplane so valuable to us. We've got to make sure that we understand the value of these things and that when we project out to where our capabilities need to go in the future that we're not just merely taking people out of airplanes.

One of the issues that we discuss often is, would we be buying this vehicle if it were manned, because the vehicle does something unique that we can't do with anything else. That's one of the litmus tests that we have to make sure that we pass. And if we can't pass that test, then we have to make sure that we're not taking the judgment out of the airplane that is absolutely required to be there.

That's why we make this distinction about remotely piloted aircraft. We're going to have a rated person at the controls of the Predator as long as there is a requirement to bear the burden of putting weapons on targets and being responsible for the lives of people on the ground, just the way we burden our people who fly in the airplanes. It's those kinds of things that we are thinking our way through in a deliberate way before we make big commitments out there for the future.

But we understand the urgency, sir, and we are pressing on with it.

Secretary ROCHE. In the notion of range of persistence, the third one that we have come upon is this notion of what we call digital acuity. It says that a drone in its 23rd hour of operation is just as sharp as it was in the second hour of operation, where a human being tires, a human being starts to lose interest, where a digital system does not. So we're looking for comparative advantage in each case and we have proven that drones or remotely piloted aircraft and piloted aircraft can operate in the same airspace very comfortably. A Navy F–18 in Afghanistan asked the Predator a question, and the Predator answered the question.

Senator COCHRAN. Thank you.

Senator STEVENS. Senator Dorgan.

Senator DORGAN. Mr. Chairman, thank you very much.

I have had the opportunity to tour the Global Hawk, the Predator and F–22 programs, and I am very impressed.

IRAQ WAR NEWS COVERAGE

I want to ask you about the Air Guard, their jet fighters, B–52s, but before I do that, let me ask a question that's been bothering me. With this 24–7 news coverage of the war and 500 journalists embedded in our Armed Forces who are fighting that war and with all of the networks actually having begun advertising before the war began about their cast of characters for analysts and interpreters, in the mornings I have watched retired generals and admirals, many people who have served this country with great distinction standing on full-scale maps on the floors and walls with pointers, and they're describing where our troops are moving, where they're headed, what they think might or might not happen. Some have even been mildly critical, I believe.

But I watch all that and I think, this is a wealth of information to me as an American citizen. I also have access to top secret briefings, as do my colleagues. What I see in the morning on television or at night by many of these analysts, former colleagues of yours, makes me wonder. Is there any cause for anxiety or concern inside the Pentagon about what's being disclosed with all these pointers? It's a wealth of information to me and to the American people. Is it also a wealth of information to the Iraqis, who I assume watch Cable News Network (CNN) and other news services? Do you have any anxiety or concerns about that, General?

General JUMPER. From time to time some of the things I have seen have actually caused me some anxiety, because it has appeared to me from time to time that some of these people, not necessarily former military people who have access to classified information, have actually talked about things that shouldn't be talked about.

By and large what I see is a description of ongoing operations that are usually lagging in events and would be of little help. I can tell you that most, not all, most of the people who formerly wore a uniform are acutely aware of this and they take great care to make sure that what they are going to say does not divulge anything. Also, it's fascinating to see how captivating this notion of a camera going along in the back of a Bradley for hours and hours is to the American people out there, and of course that gets the American people right down to the tactical level, which I think is good for them, because they get to see our soldiers, sailors, airmen and marines at work.

B–52 BOMBERS

Senator DORGAN. Thank you, General, for your response.

Let me ask about the B–52s. You talked about the KC–135s and the aging and corrosion. That same circumstance is not present with the B–52s, is it?

Secretary ROCHE. No, sir, and there are a couple of reasons. One is, the design of the plane was such that it was overdesigned and

in particular, if I can demonstrate—my colleague does it better than I do. B–52s have wings like this, and 135s have wings like that. In one case water flows into the fuselage and in the other case it flows out, so we have not had the problem of assembly metal and the cabin corrosion with B–52s. Also, over the course of time because they were nuclear bombers, there has been major structural rework done on those planes. And then lastly and most importantly, we don't fly the plane anywhere near the way it was intended to be flown. We have found that it serves a particularly wonderful mission if it goes up high, launches, stand off in defended areas, or over the top in areas where there is no air defense, so how we use the plane makes a big difference. And we kept 76 of the best from many hundreds.

Senator DORGAN. And in fact when they talk about the age of the plane, in large respect they are not that old; much and most of that plane has been replaced and updated.

Secretary ROCHE. Yes.

Senator DORGAN. But I just wanted to make that point, that we don't have the same circumstance with the B–52 even though it's a very old system.

General JUMPER. Right.

AIR NATIONAL GUARD

Senator DORGAN. Let me ask about the Air Guard and the F–22s that will come on line at some point, and I happen to share your view. I hope we can keep this schedule moving. I think it's an impressive airplane and I hope very much that we can continue to fund it and move it along. As we do that, planes have become available for the Reserve components and the Guard.

As you know, one of the best Guard units are the Happy Hooligans from Fargo. In fact, they were the first up to protect the Capitol the day of the attack on 9/11, the first fighters scrambled from Langley. They have won the William Tell award twice, and I think the only Air Guard unit perhaps to ever win it, and certainly to win it twice against all the best pilots in the world. But the best pilots are now flying the oldest airplanes, which gives them some amount of angst and myself as well. And we're trying to evaluate what's the future here, when will they get their F–15s or modern F–16s? You and I have talked about that a great deal, General, and Mr. Secretary, we have as well. Any news on that front?

Secretary ROCHE. Much depends on whether we can keep the F/A–22 schedule on. We are very aware of the Happy Hooligans' record and we also are aware that they have a strong interest in F–15s if not the F–16Cs, and that's something we have in our heads. We would like to flow these down when appropriate to the Hooligans and other members of the Guard to get some aircraft.

The second thing we would wish to do, as you know, we have a group that's called blended wing at Warner Robins on the Joint Surveillance and Target Attack Radar System (JOINT STARS) aircraft, which was a radical experiment that General Jumper and I wanted to take, which was to have active and guardsmen in the identical wing with full-time missions. Right now the head of that wing is a guardsman. And other than some constitutional issues of someone empowered by a State giving orders to a Federal force, it

has worked wonderfully, and this war is going to prove that we can do this. The only thing we would like to do different in the long run is to start to think of doing that more in the Guard, among other things to get F/A–22s into the Guard where we can blend wings.

Senator DORGAN. I will come back and talk to both of you at other times on this issue.

ELECTRONIC WARFARE

Let me just ask two additional very brief questions. One, B–52s and electronic warfare mission, I believe, General, you testified to that over in the House. And the second, I want to just ask, are you reasonably positive, do you feel generally positive about the decision the Secretary might make with respect to leasing 767s?

So if you could address those two things, the B–52 electronic warfare issue, and the 767.

Secretary ROCHE. How do you want to handle this?

General JUMPER. I will take the B–52.

Sir, as you well know, we are pursuing a program to take a very hard look at complementing the United States Navy and its desire to replace the EA–6B in a jamming world with something that can persist a little bit longer and can also help both the Navy and the Air Force and the Marine Corps with stand-off jamming that's persistent. And the platform we would like to take a look at, of course, is the B–52. Take advantage of that very large fuel tank that they have out on the wing tip——

Senator DORGAN. You said that was the size of a condominium?

General JUMPER. It's the size of a small condominium. When you stand off it doesn't look that big, but when you walk it up next to it, you can figure out you can live in it. But we could take the work on the electronic jamming pods that has been done for the Navy in the EF–18 and we could take that same technology and leverage it for this pod, I think without disturbing the rest of the mission of the aircraft at all. So it can deploy long ranges, it can persist for long periods of time and complement the shorter range F–18.

767 LEASE

Secretary ROCHE. With respect to the 767 lease, I would not want to speak for Don Rumsfeld.

Senator DORGAN. I'm just asking how you feel.

Secretary ROCHE. I feel good about some variation of the lease, because the Secretary clearly understands and accepts and is probably, given his history as Secretary of Defense earlier, recognizes that all these tankers were flying then. And in fact, some of them were flying when he was still on active duty, or just about. And that we do need new tankers and this has to be done sensibly. The fact that we now have some collegiality between his staff and the Air Force trying to address this problem in a sensible manner, I must give special praise to Secretary Aldridge. He has tried mightily to make the points that need to be made and also to try to take into account concerns of controllers and others, as well as Zone B, and we are trying to come up with an alternative that's a variation that in fact the Secretary could approve us going forward, but we're working together for the first time.

Senator DORGAN. Thank you for your responses.

Senator STEVENS. Thank you very much, gentlemen.

Two things. I have asked the staff to take a look at the current GI bill, the Montgomery bill, to make certain that it's going to be available to those who have been involved in this effort. There is some question as to whether they had to have made the decision at the time they entered the service as to whether they wished to be eligible for that, and I think many of them after this experience might want to have a second look at that, and I would urge you to talk to the Department about that.

### COMBAT PAY

Secondly, I asked the staff to look at the problem of what we called combat pay, we now call hostile fire and imminent danger pay. I'm informed that was $110 a month before the Persian Gulf War, during the Persian Gulf War it was raised about 27 percent to $150 a month. And we have had an increase in pay since for just general military pay since the Persian Gulf War of about 30 percent. Clearly, we ought to have a combat pay figure that is relevant to the current pay scales and to current problems, and I would urge you to also take this up with the Department.

I don't think we ought to jump the gun. I think that was raised actually by executive action in the Persian Gulf War, it was made permanent in the 1993 Act, but the current rate of $150 was made permanent then. We seek your guidance. I should think that the Executive Order would be sufficient right now, but the permanent pay scale ought to be raised sometime in the future.

Again, I thank you very much for your presence. Senator Inouye and I have been here now for over 30 years on this committee and watched the development of many of the systems that we're seeing used so effectively in this war, and we commend you as we did in the beginning for your efforts and your role. And I promise not to show your picture around, the one I talked to you about, General.

### ADDITIONAL COMMITTEE QUESTIONS

General JUMPER. Thank you, Senator.

Senator STEVENS. He went to high school in Anchorage.

Thank you very much.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

### QUESTIONS SUBMITTED TO JAMES G. ROCHE

### QUESTIONS SUBMITTED BY SENATOR KAY BAILEY HUTCHISON

#### BASIC MILITARY TRAINING AND TECHNICAL TRAINING SCHOOL

*Question.* Your submitted joint written statement addresses the importance of recruiting and retention to maintain a quality force. You said, "Despite the challenge of mustering such a diverse and skilled collection of Americans, we exceeded our fiscal year 2002 enlisted recruiting goals and expect to surpass fiscal year 2003 objectives. We will adapt our goals to meet new force objectives; however the capacity limitations of Basic Military Training and Technical Training School quotas will continue to challenge Total Force recruiting efforts." Since these missions are accomplished as a whole or in part at Lackland and Sheppard Air Force Bases, can you elaborate on what you mean by capacity limitations?

Answer. The Air Force is in the process of reshaping the force in response to the current security environment. Basic Military Training (BMT) and most Air Force Speciality Code (AFSC) technical schools met past capacity requirements but are now feeling stressed because of meeting new or expanded mission demands. BMT capacity is currently tight because of increased Guard/Reserve numbers but capacity is sufficient to meet demand. Some of our most in-demand career fields are trained at technical training wings in Texas (e.g., CE Readiness at Sheppard; Security Forces at Lackland; Intelligence/Linguist at Goodfellow). As we transform, certain skills will be temporarily stressed; however, adequate resources will be moved to accommodate increases in throughput. As we work through this force reshaping, training requirements will be adjusted. Active and Reserve Component requirements will be re-evaluated and enough seats made available to meet new steady state current and future requirements.

In the interim, timing of course dates may not be as convenient; however, sufficient seats will be available to accomplish Total Force mission requirements. Our focus is on making force-shaping adjustments while maintaining the most effective and efficient Total Force training pipeline possible. We expect to sustain adequate capacity given the size of the force we have today.

RANGE AND READINESS PRESERVATION INITIATIVE

*Question.* Please provide some background information on the Range and Readiness Preservation Initiative that you mentioned in your written statement, intended to examine training range activity and current legislation's impact on these activities.

Answer. The Readiness and Range Preservation Initiative (RRPI) provides clarification to specific statutes; it does not provide "sweeping" exemptions from environmental laws. Also, the RRPI is not a complete solution for every encroachment challenge. Changes in regulations and administrative practices are also being explored.

Recently, courts have been interpreting environmental statutes and existing laws in new ways that are impacting military operations on ranges and in airspace. RRPI is one process used by the Air Force to address encroachment. The current RRPI seeks focused legislative changes to protect our readiness as we manage our resources. It does this by; (1) codifying Department of the Interior policy to use DOD's integrated natural resources management plans. These replace the need for critical habitat designations under the Endangered Species Act on DOD lands, (2) amending the Marine Mammal Protection Act to clarify that military readiness activities are not considered "harassment" of marine mammals unless they present a significant potential to injure the mammals or to disrupt natural behavior patterns, (3) codifying the Environmental Protection Agency rule that munitions used as intended on operational ranges, e.g., dropped on a range, are not "solid waste," (4) clarifying Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) definition that firing a weapon is not a "release," and by (5) extending the timeframe to conform to State Implementation Plan requirements for air emissions.

In summary, these modest changes to the current laws will maintain the current status of law and regulatory implementation policy while preventing judicial creep from changing well-established rules.

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## QUESTIONS SUBMITTED BY SENATOR DANIEL K. INOUYE

FORCE PROTECTION

*Question.* Secretary Roche, I understand that the Army will be providing approximately 8,000 additional personnel to help the Air Force meet its increased force protection requirements. This support will last for two years, but is not included in the fiscal year 2003 Budget or the proposed fiscal year 2004 budget. How does the Air Force plan on funding this increase and what plans are in the works for a permanent solution to the shortfall?

Answer. The increases for Air Force force protection are a direct result of the attacks of September 11, 2001 and the Global War on Terrorism. These increases were initially fulfilled by the mobilization of over 90 percent of Air Reserve Component security forces. With the limit of 24 months of mobilization and the inability to replace those whose mobilizations will expire in 2003, the Air Force entered the agreement with the Army to provide replacement personnel. The timing of these requirements was such that the Air Force was unable to include it in the fiscal year 2003 or fiscal year 2004 budgets. For fiscal year 2003, supplemental funding was provided. The fiscal year 2004 requirement remains unfunded at this time.

The Air Force plans to permanently resolve this shortfall with a combination of increasing the number of security forces by force structure adjustments, providing contract support where applicable, and exploiting technologies that will reduce the personnel requirement.

F/A–22 RAPTOR

*Question.* Secretary Roche, as you know, the GAO has recently released a report on the cost growth of the F/A–22 Raptor. It states that "DOD has not fully informed Congress (1) about what the total cost of the production program could be if cost reduction plans do not offset cost growth as planned or (2) about the aircraft quantity that can be procured within the production cost limit." If the cost limit is maintained and estimated production costs continue to rise, will the Air Force have to procure fewer F/A–22s than currently planned?

Answer. The program has experienced production cost increases that have reduced the number of jets that can be bought. Under the $36.8 billion Congressional production cap, current estimate is that between 220–230 aircraft can be procured. It is important to note that, though aircraft affordability is not matching initial expectations, the aircraft are getting cheaper. By promoting production stability and momentum, there is no reason the program can't continue, and even accelerate, towards the ultimate goal of delivering Air Dominance to the Combatant Commanders.

With relief from the current Congressional production cap, the Air Force estimates it can procure at least 276 aircraft under the $42.2 billion OSD-approved "buy-to-budget" strategy. This revised estimate accounts for actual negotiated lots through Lot 3, conservative assumptions for future efficiencies, and a 5 percent risk factor for production "unknowns." In addition, the Air Force and Office of the Secretary of Defense (OSD) Cost Analysis Improvement Group (CAIG) quantity estimates now agree within 3 percent. For these reasons as well as the positive affordability trend mentioned above, the Air Force fully expects to buy more than 276 aircraft under the OSD-approved production limit.

*Question.* Secretary Roche, at the annual Air Force Association's Air Warfare Symposium, you described problems with F/A–22 and contended that if those problems cannot be repaired you would recommend termination of the program. Can you please describe the problems you were referring to, and is it your plan to cancel the program is these problems continue?

Answer. The problem I referred to at the Air Warfare Symposium is avionics software stability. The issue is not how well the avionics perform, but how long they run before a module in the avionics software suite requires a reset. The current average run-time between resets, as measured in the F/A–22 Avionics Integration Laboratory (AIL), decreased when the software was loaded on the aircraft. OSD chartered an independent team to study this problem and recommend ways for improving run-time in the jet and ways for translating stability from the AIL into the aircraft. The team's recommendations center on implementation of new software development tools and data capturing methods for finding and fixing the root causes of instability events. The team stated that, after implementing new tools, there is no reason software stability cannot be resolved.

TANKER FLEET

*Question.* Secretary Roche, General Myers stated in testimony before the Congress that replacing the 40-year old KC–135 air refueling fleet is an essential joint warfighting requirement. However, funds for replacing the tankers were not included in the fiscal year 2004 budget request. Is the tanker fleet "relatively healthy" or is the replacement of refueling tanks "essential" to support mission requirements?

Answer. Recapitalization of the tanker fleet is "essential" and must begin now to continue to meet tanker requirements. The fiscal year 2004 President's Budget does not include funding for the tanker replacement; however, there are two options under consideration by the Department of Defense to field a replacement aircraft within the future years defense plan. Pending departmental approval, the Air Force intends to bring the recommended plan forward and identify funding and delivery schedules at that time.

AIR FORCE INVESTMENT BUDGET

*Question.* Secretary Roche, a Congressional Budget Office study of the long-term budget implications of current defense plans commissioned by this committee suggested that the Air Force's investment budget would need to grow to $59 billion by around 2012. The Air Force has made some cut backs to force size since CBO made

that estimate but it seems likely that Air Force investment will require significant real increases in spending. Do you think those increases are likely to become available?

Answer. As the CBO study illustrates, the Air Force faces a complex set of aging aircraft/system challenges. Since procurement of new U.S.A.F. aircraft/systems dropped to minimal levels during the 1990s, we now face a modernization bow wave that will take time and money to turn around. Moreover, the cost to maintain older systems could grow substantially and further erode the funding available for modernization.

Though it is not appropriate for me to predict the level of funding, it is my role to examine the national security strategy and make recommendations to the Secretary and on how best to spend those funds available. We do this each year as part of the Future Years Defense Program build. The next comprehensive look at all this, to include the new security strategy and the post-Iraq-War environment, will be during the 2006 Quadrennial Defense Review. The Air Force will be a full and active partner in that process.

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## QUESTIONS SUBMITTED TO GENERAL JOHN P. JUMPER

### QUESTION SUBMITTED BY SENATOR THAD COCHRAN

#### AIR EXPEDITIONARY FORCE

*Question.* General Jumper, I understand the Air Expeditionary Force construct you refer to on pages 11 and 12 of your written statement has been useful in managing deployment rotations and incorporation of the Guard and Reserves. Can you comment on the utility of this rotation methodology in the Afghanistan and Iraqi conflicts?

Answer. The Air Expeditionary Force (AEF) has been very successful in allowing the Air Force to respond to the requirements of both Afghanistan and Iraq. Even under these stressing conditions the AEF allowed us to deploy and re-deploy forces in an orderly and thoughtful manner, thereby preserving the ability of the Air Force to meet national security imperatives.

In January 2003, we made the decision to deviate from our normal 3-month rotations so the Air Force could meet combatant commander requirements. To do so we "surged" the AEF to build-up the level of available forces by freezing AEF seven and eight in place and reaching forward into future AEFs for additional forces. This allowed us to simultaneously support homeland security requirements, the global war on terrorism, Operation IRAQI FREEDOM, and an increased force posture in the Korean AOR proving the AEF's robustness and ability to respond to crisis situations; however, this deviation from the Air Force's normal AEF "battle rhythm" affected all Air Force personnel: Active Duty, Guard, and Reserve.

As I noted in the U.S.A.F. Posture Statement, "we do nothing without Guard, Reserve and civilian personnel working alongside Active Duty airmen." The AEF construct gives the Air Force the tools to select the Active Duty, Guard or Reserve capability best able to meet combatant commander's requirements and achieve national military objectives. Since September 11, 2001, we have seen a continued increase in baseline requirements for air and space expeditionary forces. This trend began after Desert Storm and has continued throughout Kosovo and Afghanistan. Until we are better able to judge the post Operation IRAQI FREEDOM requirements, we cannot specifically define the level of emerging sustained forces required. Regardless of the level of this requirement, the AEF construct allows us to maximize our sustainable deployed capability while giving us the flexibility to respond to additional contingency requirements.

To understand this, one has to realize that the AEF construct is not just a way for the Air Force to manage deployment rotations. The AEF construct allows us to provide the greatest possible capability to the combatant commanders while preserving the readiness of the force to meet both rotational and crisis requirements. A crucial part of force readiness is achieved by retaining our most critical resource, the trained and motivated airman. The recent conflicts in Iraq and Afghanistan have once again highlighted the tremendous job these young professionals are doing for our country. To retain this crucial resource it is essential we give them the tools to manage their professional and personal lives by providing predictability and stability. The AEF construct has been fundamental to our ability to train and retain the best and brightest.

Recent Operations operations have afforded the Air Force an opportunity to test the ability of the AEF to robust and respond to crisis situations. The AEF met this

challenge head-on, seamlessly proving each combatant commander with the expeditionary air and space capabilities to prevail.

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## QUESTIONS SUBMITTED BY SENATOR DANIEL K. INOUYE

### TANKER FLEET

*Question.* General Jumper, there is strong reason to believe that the need for aerial refueling operations to conduct current and future operations will continue to grow. Is the Air Force's current tanker fleet able to handle an increased pace of operations?

Answer. We are confident that we can, and will, successfully execute missions as we did with Operations ENDURING FREEDOM and IRAQI FREEDOM. However, if simultaneous operations in other regions are added, tanker availability becomes more of a limiting factor, delaying deployment of forces, and extending the duration of the air war.

The Air Force has an urgent and compelling need to begin replacing the 43-year-old KC–135E as soon as possible. Competing priorities and limited budget demand our leaders make decisions based on operational risk and investment choices. Today, our most pressing tanker risk is a delay to the replacement process. In the future, the Air Force will continue to assess its tanker requirements and make appropriate decisions regarding future force structure.

### SPACE PROGRAMS

*Question.* General Jumper, the Space-Based InfraRed System-High has in the past suffered from schedule delays and significant cost growth. Can you please give the committee an update on progress in the Air Force's Space-Based InfraRed System-High in the fiscal year 2004 budget request and can you guarantee that this program is on schedule and within its budget?

Answer. The fiscal year 2004 Research, Development, Test and Evaluation (RDT&E) request for Space-Based Infrared System-High (SBIRS High) will continue to fund the development contract for space and ground segment development, continue System Program Office support, and independent technical analysis by Aerospace corporation.

The fiscal year 2004 Other Procurement, Air Force (OPAF) will fund procurement of equipment needed for Mission Control Station Backup (MCSB) site activation, systems engineering, integration, and test support; and hardware and software licenses and government furnished equipment (GFE). The MCSB at Schriever AFB, CO will be the backup to the SBIRS Mission control station (MCS) at Buckley AFB, CO, to meet full operational needs. The MCSB is currently under construction using the MILCON funded in fiscal year 2002 ($19 million) and is on schedule for completion by September 2003.

The Interim Test Center (ITC) hardware installation in Boulder, CO, is scheduled to be completed in July. The Integrated Training Suite (ITS) is scheduled to be available in the fall of this year. The ITS is critical to maintain an experienced and effective crew force—ensuring personnel are trained when they arrive station and remain proficient throughout their assignment.

SBIRS Highly Elliptical Orbit (HEO)-1 payload environmental testing, including thermal vacuum and acoustic tests, and several payload-to-host and -ground interface tests were successfully completed in 2002. Electromagnetic Interference (EMI) testing uncovered excessive radiated emissions levels in late December 2002. The HEO–1 test and certification program is designed to find and fix problems. The problems encountered are not unusual for first time payload integration of a new sensor. Resolution has required extended rework and parts fabrication, resulting in a schedule breach to the Acquisition Program Baseline for delivery of the HEO–1 payload (May 2003 threshold). The revised schedule details are still being worked; however, delivery should satisfy the Host's need date. Impacts to the schedules for subsequent deliveries, including HEO–2 payload and GEO spacecraft, are under review. The delivery of HEO–1 continues to receive the highest attention and priority among all stakeholders, contractor CEOs, and the Under Secretary of the Air Force.

The recent delay in the delivery of the HEO–1 payload is being handled within the program's funding based on the cost estimate developed during the Nunn McCurdy certification review process. While HEO–1 payload delay is unfortunate, the lessons learned from this delay are being incorporated in the HEO–2 and GEO assembly, integration, and test.

As a result of the schedule delays and significant cost growth that led to the SBIRS Nunn-McCurdy unit cost breach notification to Congress in December 2001,

the Secretary of the Air Force directed an Independent Review Team (IRT), in concert with Lockheed Martin, to review the program and diagnose the root causes and contributing factors of the significant cost growth. Three root causes were identified.

1. The program was too immature to enter the detailed System Design and Development phase.

2. The system requirements and their flow-down into engineering solutions were not well understood.

3. A significant breakdown in execution management occurred, both within the government and the contractor teams.

These findings were addressed in the restructured program presented to the Under Secretary of Defense Acquisition, Technology, and Logistics USD(AT&L) for his review.

The USD(AT&L) certified the SBIRS program to Congress as required by the Nunn-McCurdy Act on May 2, 2002. The Acquisition Decision Memorandum directed the Air Force to:

—Fully fund the SBIRS-High program to the OSD estimate

—Rebaseline program to OSD schedule

—Approve a revised Acquisition Program Baseline and a revised Acquisition Strategy

—Submit a quarterly Selected Acquisition Report with an as-of-date of June 30, 2002

—By January 30, 2003, Under Secretary of the Air Force provide AT&L with assessment of the program status to meet the revised Acquisition Program Baseline—completed January 27, 2003.

As part of the Nunn-McCurdy certification process, the Air Force restructured SBIRS High to make it executable and fully funded the program to the OSD estimate. The program established a realistic baseline and implemented management changes based on the Independent Review Team findings. The acquisition strategy was revised and the Total System Performance Responsibility (TSPR) clause removed from the contract. The comprehensive government Estimate at Complete (EAC) identified many shortfalls with the original technical baseline that are now corrected and funded. The schedule also provides for adequate testing timelines (based on historical data). The Earned Value Management System (EVMS) enhancements add industry best practices and more SPO surveillance. Both government and Aerospace staff dedicated to SBIRS have increased.

The program is implementing only "Urgent & Compelling" needs via a disciplined change process controlled by the SBIRS Program Management Board. This Program Management Board is in place to prevent requirements creep. The revised contract defines quantifiable, objective performance criteria to reward positive behavior and penalize poor behavior—a Best practice recommendation of the Young Panel.

—Program Execution Performance (PEP) incentivizes disciplined management/system engineering processes

—Mission Success Incentive incentivizes timely delivery of military capability

—Cost Plus Incentive Fee (CPIF) contract clause incentivizes cost performance

Although challenges remain, the Department is reasonably confident that the SBIRS cost and schedule estimates are realistic and executable, based on both Air Force and OSD independent cost estimates.

EXPEDITIONARY AEROSPACE FORCE (EAF)

*Question.* General Jumper, given the current world situation—with its large scale deployments for the war on terrorism and war with Iraq, and the possibility that these large scale deployments might continue for a number of years—is the EAF concept still viable?

Answer. Yes, the Aerospace Expeditionary Force (AEF) concept is still viable. The AEF concept is not tied to a particular base or mission. It is the way the Air Force organizes and prepares for military operations abroad.

The Air Force implemented the AEF structure in October 1999 as a force management and presentation tool designed to ensure fully trained and combat-capable airpower forces are always available to successfully support standing contingency operations.

Sustaining on-going rotation requirements has become part of our Air Force culture. The AEF concept articulates the capability of the Air Force to support normal standing rotations and contingency operations. The Air Force can indefinitely support the deployment of up to two AEFs (aircraft and expeditionary combat support) worth of assets.

When contingency requirements exceeded this maximum sustainable capability, we "surged" the AEF to meet those evolving requirements. During "surge" we are

able to temporarily increase the amount of deployed capability up to four AEFs. Requirements beyond two AEFs force us to reach forward into successive AEFs for the required capabilities. This surge comes at a price. To enable the build-up of capability unit training cycles are curtailed and deployment durations are extended. The higher the level and the duration of surge the greater the reconstitution impact, in terms of training and recapitalization of equipment. The Air Force is prepared to transition back to a more normal rotation cycle when the combatant commanders no longer need the additional support for OPERATION IRAQI FREEDOM.

It is important to stress that the ability of the Air Force to support deployment requirements is in no way limited by the AEF construct. The AEF structure allows the Air Force to meet the challenges head on. It provides the Air Force a methodology for managing force readiness to meet the growing demands for Air & Space Expeditionary Forces, while simultaneously supporting the Defense Strategy requirements such as: defend the homeland, deter forward, swiftly defeat and/or a limited number of lesser contingencies.

Total force size, active to reserve component mix and overseas and CONUS base structure determine our total deployment capability. To maintain readiness and meet retention needs the Air Force, like the other services, needs to limit Temporary Duty (TDY)/deployments of this deployable capability to approximately one-third of the time. The AEF rotational construct does this.

Air Force senior leadership is working to reshape the force in areas of concern highlighted by the recent stress on the system resulting from current operations. Where possible we are shifting resources from less stressed areas into stressed career fields and shifting military positions to make the maximum deployable capability available. We are also completely revamping our methodology for determining military and civilian manning requirements to focus the requirement process on deployable capability rather that home station requirements. These efforts have made over 270,000 active duty positions available to meet deployed requirements.

The bottom line is that the AEF has been a tremendous success since its inception. The modifications we are pursuing, such as embedding the Air Expeditionary Wings (AEWs) have enhanced the capability of the AEF over the course of its evolution. The likely level of requirements will continue to stress the Air Force in the coming years as we reduce the numbers of mobilized forces, the AEF gives us the best possible tool to cope with these stresses.

SUBCOMMITTEE RECESS

Senator STEVENS. If there is nothing further, the subcommittee will stand in recess.

[Whereupon, at 11:25 a.m., Wednesday, March 26, the subcommittee was recessed, to reconvene subject to the call of the Chair.]